

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica St. Louis

13715 Rider Trail North

Earth City, MO 63045

Tel: (314)298-8566

TestAmerica Job ID: 160-22833-1

Client Project/Site: Alameda - Soil IDW Samples

For:

AMEC Foster Wheeler E & I, Inc

800 North Bell Avenue, Suite 200

Pittsburgh, Pennsylvania 15106

Attn: Mr. Kevin Olness



Authorized for release by:

7/14/2017 3:46:06 PM

Erika Gish, Project Manager II

(314)298-8566

erika.gish@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Job ID: 160-22833-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

Client: AMEC Foster Wheeler E & I, Inc

Project: Alameda - Soil IDW Samples

Report Number: 160-22833-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica St. Louis attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results for Chemistry analyses are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header. All soil/sediment sample results for radiochemistry analyses are based upon sample as dried and disaggregated with the exception of tritium, carbon-14, and iodine-129 by gamma spectroscopy unless requested as wet weight by the client."

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt

Manual Integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure. Detailed information can be found in the raw data section of the level IV report.

The following clean-up methods for Organic analyses may have been used on the samples in this data set. Specific methods employed are documented on the batch extraction logs:

Method 3600C: Cleanup
Method 3620C: Florisil Cleanup
Method 3630C: Silica Gel Cleanup
Method 3640A: Gel-Permeation Cleanup
Method 3650B: Acid-Base Partition Cleanup
Method 3660B: Sulfur Cleanup
Method 3665A: Sulfuric Acid/Permanganate Cleanup

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

Case Narrative

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Job ID: 160-22833-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

RECEIPT

The samples were received on 6/14/2017 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.7° C.

Receipt Exceptions

All samples were received in plastic bags. M061A (160-22833-1), M062A (160-22833-2), M063A (160-22833-3), M064A (160-22833-4), M065A (160-22833-5), M061A-R (160-22833-6) and M066A (160-22833-7)

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): M061A-R (160-22833-6). The container labels list M061A-R, while the COC lists MO65A-R. Sample was logged using the container label per client instruction.

VOLATILE ORGANIC COMPOUNDS BY GC/MS

Samples M061A (160-22833-1), M062A (160-22833-2), M063A (160-22833-3), M064A (160-22833-4), M065A (160-22833-5), M061A-R (160-22833-6) and M066A (160-22833-7) were analyzed for Volatile Organic Compounds by GC/MS in accordance with EPA SW-846 Method 8260C. The samples were prepared on 06/19/2017 and 06/20/2017 and analyzed on 06/21/2017 and 07/02/2017.

Analytical Batch 160-316357

Surrogate Dibromofluoromethane (Surr) recovery for the following sample was outside the upper control limit: M065A (160-22833-5). This sample did not contain any target analytes above the Reporting Limit that are associated with the affected surrogate; therefore, re-analysis was not performed.

The following compounds did not meet the minimum relative response factor limits in the continuing calibration verification (CCV): Acetone, Methyl acetate, Bromomethane, and 2-Butanone (MEK). A low-level LOQV was analyzed at the reporting limit (5ug/L) and the affected analytes were detected. Target analytes recovering above the reporting limit will be qualified and reported. (CCV 160-314357/3) and (CCVC 160-314357/27)

Internal standard and surrogate responses were outside of acceptance limits for the following sample: M064A (160-22833-4). The sample shows evidence of matrix interference caused by high levels of non-target analytes.

Analytical Batch 160-316046

The following compounds did not meet the minimum relative response factor limits in the continuing calibration verification (CCV): Acetone, Methyl acetate, Bromomethane, Chloroethane and 2-Butanone (MEK). A low-level LOQV was analyzed at the reporting limit (5ug/L) and the affected analytes were detected. Target analytes recovering above the reporting limit will be qualified and reported. (CCV 160-316046/3) and (CCVC 160-316046/17)

The following sample was analyzed at reduced volume due to high concentrations of target and non-target analytes: M061A-R (160-22833-6). The reporting limits have been elevated by the appropriate factor.

Surrogate recovery for the following sample was outside control limits: M061A-R (160-22833-6). Evidence of matrix interference due to non-target analytes is present; therefore, re-extraction and re-analysis was not performed.

The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) recovered outside control limits for the following analytes: Bromomethane, Chloroethane, Dichlorodifluoromethane and Vinyl chloride. None of these analytes were detected above the Reporting Limit in the associated samples.

A matrix spike/matrix spike duplicate (MS/MSD) was not performed in order to prevent excessive instrument contamination by high levels of non-target analytes. An LCS/LCSD was performed to demonstrate accuracy and precision.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GASOLINE RANGE ORGANICS (GRO)

Samples M061A (160-22833-1), M062A (160-22833-2), M063A (160-22833-3), M064A (160-22833-4), M065A (160-22833-5), M061A-R (160-22833-6) and M066A (160-22833-7) were analyzed for gasoline range organics (GRO) in accordance with SW-846 Method 8015 GRO DOD. The samples were analyzed on 06/29/2017, 06/30/2017 and 07/02/2017.

Case Narrative

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Job ID: 160-22833-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

Analytical Batch 160-315845

Surrogate recovery for the following sample was outside control limits: M064A (160-22833-4). Matrix interference is suspected; therefore, re-extraction and/or re-analysis was not performed.

There was an MS/MSD performed with these sample, but the parent sample required a higher dilution; therefore the MS/MSD was not reported. An LCS/LCSD was performed to demonstrate accuracy and replicate precision.

The following samples contained peaks which were within the Gasoline Range Organics (GRO) retention time window: M062A (160-22833-2), M064A (160-22833-4) and M066A (160-22833-7). These peaks are large enough that there is a reportable concentration; however, there is no resemblance between the reportable peak and the pattern of GRO.

Analytical Batch 160-316043

The following sample required a dilution due to the nature of the sample matrix: M061A-R (160-22833-6). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

The following samples was diluted to bring the concentration of target analytes within the calibration range: M061A (160-22833-1) and M061A-R (160-22833-6). Elevated reporting limits (RLs) are provided.

The following samples contained peaks which were within the Gasoline Range Organics (GRO) retention time window: M061A (160-22833-1) and M061A-R (160-22833-6). These peaks are large enough that there is a reportable concentration; however, there is no resemblance between the reportable peak and the pattern of GRO.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DIESEL RANGE ORGANICS (DRO) (GC)

Samples M061A (160-22833-1), M062A (160-22833-2), M063A (160-22833-3), M064A (160-22833-4), M065A (160-22833-5), M061A-R (160-22833-6) and M066A (160-22833-7) were analyzed for Diesel Range Organics (DRO) (GC) in accordance with EPA SW-846 Method 8015B_DRO. The samples were prepared on 06/15/2017 and analyzed on 07/13/2017.

Due to the thick matrix, the following sample could not be concentrated to the final method required volume: M061A-R (160-22833-6). The reporting limits (RLs) are elevated proportionately.

Due to the thick matrix, the following sample could not be concentrated to the final method required volume: (160-22833-A-1 MS). The reporting limits (RLs) are elevated proportionately.

The samples were analyzed at a dilution due to the nature of the sample matrix: M061A (160-22833-1), M064A (160-22833-4), M065A (160-22833-5) and M061A-R (160-22833-6) . The sample extracts were dark and oily which analyzed undiluted has historically caused instrumentation problems. The sample surrogate recoveries were diluted out as a result of the dilutions. Elevated reporting limits (RLs) are provided.

The following samples were diluted due to the nature of the sample matrix: M062A (160-22833-2) and M063A (160-22833-3). The sample extracts were brown which analyzed undiluted has historically caused instrumentation problems. Elevated reporting limits (RLs) are provided.

The sample designated for MS/MSD analysis required significant dilution as to render the MS/MSD analysis ineffective. No data reported for MS/MSD.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

METALS (ICP/MS)

Samples M061A (160-22833-1), M062A (160-22833-2), M063A (160-22833-3), M064A (160-22833-4), M065A (160-22833-5), M061A-R (160-22833-6) and M066A (160-22833-7) were analyzed for Metals (ICP/MS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 07/05/2017 and analyzed on 07/11/2017.

Analytical Batch 160-316900

Case Narrative

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Job ID: 160-22833-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

The following samples were diluted to bring the concentration of target analytes within the calibration range or diluted due to high concentrations of salts: M061A (160-22833-1), M062A (160-22833-2), M063A (160-22833-3), M064A (160-22833-4), M065A (160-22833-5), M061A-R (160-22833-6), M066A (160-22833-7), (160-22833-A-1-X MS), (160-22833-A-1-Y MSD), (160-22833-A-1-W PDS) and (160-22833-A-1-W SD). Elevated reporting limits (RLs) are provided.

The matrix spike and/or matrix spike duplicate (MS/MSD) recoveries were outside control limits for Barium and Lead. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

The matrix spike / matrix spike duplicate (MS/MSD) precision and percent recoveries were outside control limits for Zinc indicating a potential matrix interference.

The post digestion spike % recovery for Copper and Lead was outside of control limits indicating a potential matrix interference.
(160-22833-A-1-W PDS)

Analytical Batch 160-316963

The following samples was diluted to bring the concentration of target analytes within the calibration range or due to high concentrations of salts: M061A (160-22833-1), M062A (160-22833-2), M063A (160-22833-3), M064A (160-22833-4), M065A (160-22833-5), M061A-R (160-22833-6), M066A (160-22833-7), (160-22833-A-1-X MS), (160-22833-A-1-Y MSD), (160-22833-A-1-W PDS) and (160-22833-A-1-W SD). Elevated reporting limits (RLs) are provided.

The matrix spike / matrix spike duplicate (MS/MSD) RPD was outside control limits for ---cadmium. The MS/MSD % recoveries were within acceptable limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

MERCURY (CVAA)

Samples M061A (160-22833-1), M062A (160-22833-2), M063A (160-22833-3), M064A (160-22833-4), M065A (160-22833-5), M061A-R (160-22833-6) and M066A (160-22833-7) were analyzed for Mercury (CVAA) in accordance with EPA SW-846 Method 7471B_DoD5. The samples were prepared on 06/21/2017 and analyzed on 06/22/2017.

Due to the additional level of analyte present in the original sample, the concentration of mercury in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples M061A (160-22833-1), M062A (160-22833-2), M063A (160-22833-3), M064A (160-22833-4), M065A (160-22833-5), M061A-R (160-22833-6) and M066A (160-22833-7) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 06/14/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

RADIUM-226 BY GAMMA SPEC (21 DAY INGROWTH)

Samples M061A (160-22833-1), M062A (160-22833-2), M063A (160-22833-3), M064A (160-22833-4), M065A (160-22833-5), M061A-R (160-22833-6) and M066A (160-22833-7) were analyzed for Radium-226 by gamma spec (21 day ingrowth) in accordance with EPA 901.1. The samples were dried on 06/14/2017, prepared on 06/15/2017 and analyzed on 07/07/2017, 07/08/2017, 07/09/2017 and 07/10/2017.

The cobalt-60 detection goal of 0.0361 pCi/g was not met. This is caused by the elevated Compton background due to the higher concentrations of potassium-40. The associated Method Blank (MB) met the RL under similar circumstances indicating the interference is valid. The data have been qualified and reported. M062A (160-22833-2) and M064A (160-22833-4)

The cobalt-60 detection goal of 0.0361 pCi/g was not met. This is caused by the elevated Compton background due to the higher concentrations bismuth-214 daughters. The associated Method Blank (MB) met the RL under similar circumstances indicating the interference is valid. The data have been qualified and reported. M061A-R (160-22833-6)

Case Narrative

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Job ID: 160-22833-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

The method blank (MB), analyzed by gamma spectroscopy, detected radium-226 above the MDC but below the detection goal. The data have been qualified and reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

STRONTIUM-90 (GFPC)

Samples M061A (160-22833-1), M062A (160-22833-2), M063A (160-22833-3), M064A (160-22833-4), M065A (160-22833-5), M061A-R (160-22833-6) and M066A (160-22833-7) were analyzed for Strontium-90 (GFPC) in accordance with EPA 905. The samples were dried on 06/14/2017, prepared on 06/16/2017 and analyzed on 06/28/2017.

The following samples could not be thoroughly homogenized before sub-sampling was performed due to sample matrix: M061A (160-22833-1), M062A (160-22833-2), M063A (160-22833-3), M064A (160-22833-4), M065A (160-22833-5), M061A-R (160-22833-6) and M066A (160-22833-7). The samples contained small rocks.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ISOTOPIC THORIUM (ALPHA SPECTROMETRY)

Samples M061A (160-22833-1), M062A (160-22833-2), M063A (160-22833-3), M064A (160-22833-4), M065A (160-22833-5), M061A-R (160-22833-6) and M066A (160-22833-7) were analyzed for Isotopic Thorium (Alpha Spectrometry) in accordance with DOE A01R_Th. The samples were dried on 06/14/2017, prepared on 06/21/2017 and analyzed on 07/01/2017.

The following samples contain rocks and are non-homogeneous: M061A (160-22833-1), M062A (160-22833-2), M063A (160-22833-3), M064A (160-22833-4), M065A (160-22833-5), M061A-R (160-22833-6), M066A (160-22833-7) and (160-22833-A-1-A DU)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ISOTOPIC URANIUM (ALPHA SPECTROMETRY)

Samples M061A (160-22833-1), M062A (160-22833-2), M063A (160-22833-3), M064A (160-22833-4), M065A (160-22833-5), M061A-R (160-22833-6) and M066A (160-22833-7) were analyzed for Isotopic Uranium (Alpha Spectrometry) in accordance with DOE. The samples were dried on 06/14/2017, prepared on 06/21/2017 and analyzed on 07/01/2017 and 07/03/2017.

The following samples contain rocks and are non-homogeneous: M061A (160-22833-1), M062A (160-22833-2), M063A (160-22833-3), M064A (160-22833-4), M065A (160-22833-5), M061A-R (160-22833-6), M066A (160-22833-7) and (160-22833-A-1-A DU)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Chain of Custody Record

Earth City, MO 63045-1205
phone 314.298.8566 fax 314.298.8757

Regulatory Program: <input checked="" type="checkbox"/> DW <input type="checkbox"/> RCRA <input type="checkbox"/> NPDES											
Client Contact											
<p>Tina Green</p> <p>BC Labs</p> <p>9210 Sky Park Ct San Diego, CA 92123 (xxx) xxx-xxxx</p> <p>Project Name: Alameda B/GMP IR Site 1</p> <p>Site: IR Site 1</p> <p>P O # 5023146096 061</p>						<p>Project Manager: Kevin Green</p> <p>Tel/Fax: 661-852-4204</p> <p>BC Labs Ctr</p> <p>Bakersfield, CA 93308 800-978-1784</p> <p>TAT if different from Below</p> <p>2 weeks 1 week 2 days 1 day</p>					
<p><input type="checkbox"/> Other</p> <p><input type="checkbox"/> COCs</p> <p><input type="checkbox"/> COC No: /</p> <p><input type="checkbox"/> Sampler:</p> <p><input type="checkbox"/> For Lab Use Only:</p> <p>Walk-in Client: Lab Sampling:</p> <p>Job / SDG No.:</p>											
<p>160-22833 Chain of Custody</p> <p></p>											
<p>Sample Specific Notes:</p> <p>02/05 ST-RC-0003, 51A (803) 4-01-R Model (EPA 901.1 ST-RC-6025/18)</p> <p>Gamm Spec Hg-222 Methyls, Hg-223</p> <p>TPH-g (8015B) TPH-g (8015B)</p> <p>VOCs (8260B)</p> <p>Petrom MS/MSD (V1/N)</p> <p>Filled Sample (V1/N)</p>											
Sample Identification			Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.				
M061A	06/07/17	1700	C	S0	/	X	X				
M062A	06/07/17	1700	C	S0	/	X	X				
M063A	06/07/17	1710	C	S0	/	X	X				
M064A	06/07/17	1700	C	S0	/	X	X				
M065A	06/07/17	1710	C	S0	/	X	X				
M065A-R	06/01/17	1710	C	S0	/	X	X				
M066A	06/07/17	1700	C	S0	/	X	X				
<p>Preservation Used: 1=Ice; 2=HCl; 3=H₂SO₄; 4=HNO₃; 5=NaOH; 6= Other</p> <p>Possible Hazard Identification:</p> <p>Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.</p> <p><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown</p> <p>Special Instructions/QC Requirements & Comments:</p>											
<p><input type="checkbox"/> Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Relinquished by: Jocelyn Dumont</p> <p>Relinquished by: John Black</p> <p>Relinquished by: John Black</p>				<p>Custody Seal No.: 170117-CFW</p> <p>Company: BC Labs</p> <p>Company: BC Labs</p> <p>Company: BC Labs</p>				<p>Cooler Temp. (°C): Obs'd: Corr'd: _____</p> <p>Received by: John Black</p> <p>Date/Time: 06/13/17</p> <p>Company: BC Labs</p> <p>Received by: John Black</p> <p>Date/Time: 06/13/17</p> <p>Company: BC Labs</p> <p>Received by: John Black</p> <p>Date/Time: 06/13/17</p> <p>Company: BC Labs</p>			
								<p>Therm ID No.: TA57</p> <p>Date/Time: 06/14/17</p> <p>Company: BC Labs</p>			
								<p>Therm ID No.: 0920</p> <p>Date/Time: 06/14/17</p> <p>Company: BC Labs</p>			

Preservation | Used: 1=ice; 2=HCl; 3=H₂SO₄; 4=HNO₃; 5=NaOH; 6=Other -

Possible Hazard Identification:

Possible Hazard Identification:
Are any samples from a listed EP/Comments Section if the lab is to be used?

Chemical Hazards Summary: Non-Hazard Flammable Skin Irritant

he

Return to Client Disposal by Lab Archive for _____ Months

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Cooler Temp. ($^{\circ}\text{C}$): Obs'd: _____ Corr'd: _____ Therm ID No. _____

Date/Time: _____

CC:14/17

Received by _____ Company _____ Date/Time: _____

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Received in Laboratory by _____ Date/Time: _____

ceived in laboratory by:

FORM NO. 6A5 WI 002 Page

FORM NO. CA-C-WI-002, REV

5
6
7
8
9
0
1
2
3
4

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 160-22833-1

Login Number: 22833

List Source: TestAmerica St. Louis

List Number: 1

Creator: Clarke, Jill C

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	False	Sample -6 was received with a label ID of M061A-R, while the COC lists M065A-R. (logged per COC)
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	False	All samples were received in bags.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Definitions/Glossary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
Q	One or more quality control criteria failed.
D	The reported value is from a dilution.

GC VOA

Qualifier	Qualifier Description
D	The reported value is from a dilution.
U	Undetected at the Limit of Detection.
Q	One or more quality control criteria failed.

GC Semi VOA

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Rad

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)

Definitions/Glossary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Glossary (Continued)

Abbreviation These commonly used abbreviations may or may not be present in this report.

RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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Method Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method	Method Description	Protocol	Laboratory
8260C DOD	Volatile Organic Compounds (GC/MS)	SW846	TAL SL
8015B GRO DOD	Gasoline Range Organics - (GC)	SW846	TAL SL
8015B DRO	Diesel Range Organics (DRO) (GC)	SW846	TAL SL
6020A	Metals (ICP/MS)	SW846	TAL SL
7471B	Mercury (CVAA)	SW846	TAL SL
Moisture	Percent Moisture	EPA	TAL SL
901.1	Radium-226 & Other Gamma Emitters (GS)	EPA	TAL SL
905	Strontium-90 (GFPC)	EPA	TAL SL
A-01-R	Isotopic Thorium (Alpha Spectrometry)	DOE	TAL SL
A-01-R	Isotopic Uranium (Alpha Spectrometry)	DOE	TAL SL

Protocol References:

DOE = U.S. Department of Energy

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-22833-1	M061A	Solid	06/07/17 17:00	06/14/17 09:20
160-22833-2	M062A	Solid	06/07/17 17:00	06/14/17 09:20
160-22833-3	M063A	Solid	06/07/17 17:00	06/14/17 09:20
160-22833-4	M064A	Solid	06/07/17 17:00	06/14/17 09:20
160-22833-5	M065A	Solid	06/07/17 17:00	06/14/17 09:20
160-22833-6	M061A-R	Solid	06/07/17 17:00	06/14/17 09:20
160-22833-7	M066A	Solid	06/07/17 17:00	06/14/17 09:20

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TestAmerica St. Louis

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M061A

Lab Sample ID: 160-22833-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	580		280	15	ug/Kg	1	⊗	8260C DOD	Total/NA
1,3-Dichlorobenzene	10	J	280	8.6	ug/Kg	1	⊗	8260C DOD	Total/NA
1,4-Dichlorobenzene	70	J	280	17	ug/Kg	1	⊗	8260C DOD	Total/NA
cis-1,2-Dichloroethene	8200		280	12	ug/Kg	1	⊗	8260C DOD	Total/NA
trans-1,2-Dichloroethene	34	J	570	9.2	ug/Kg	1	⊗	8260C DOD	Total/NA
Ethylbenzene	27	J	280	9.4	ug/Kg	1	⊗	8260C DOD	Total/NA
Isopropylbenzene	99	J	280	11	ug/Kg	1	⊗	8260C DOD	Total/NA
Methylcyclohexane	100	J	570	14	ug/Kg	1	⊗	8260C DOD	Total/NA
Methylene Chloride	66	J	280	57	ug/Kg	1	⊗	8260C DOD	Total/NA
Trichloroethene	280		280	20	ug/Kg	1	⊗	8260C DOD	Total/NA
Vinyl chloride	69	J Q	570	31	ug/Kg	1	⊗	8260C DOD	Total/NA
Xylenes, Total	280	J	850	33	ug/Kg	1	⊗	8260C DOD	Total/NA
Toluene	130	J	280	14	ug/Kg	1	⊗	8260C DOD	Total/NA
Gasoline Range Organics (C6-C12)	280	D	28	2.8	mg/Kg	5	⊗	8015B GRO DOD	Total/NA
Diesel Range Organics [C10-C28]	720	J D	2800	280	mg/Kg	100	⊗	8015B DRO	Total/NA
Motor Oil Range Organics [C28-C40]	790	J D	2800	280	mg/Kg	100	⊗	8015B DRO	Total/NA
Antimony	0.73	J D	1.4	0.56	mg/Kg	5	⊗	6020A	Total/NA
Arsenic	3.4	D	2.8	1.1	mg/Kg	5	⊗	6020A	Total/NA
Barium	48	D J	5.6	1.4	mg/Kg	5	⊗	6020A	Total/NA
Beryllium	0.15	J D	0.28	0.11	mg/Kg	5	⊗	6020A	Total/NA
Cadmium	4.8	D J	0.14	0.068	mg/Kg	5	⊗	6020A	Total/NA
Chromium	57	D	2.8	1.3	mg/Kg	5	⊗	6020A	Total/NA
Cobalt	5.9	D	0.56	0.21	mg/Kg	5	⊗	6020A	Total/NA
Copper	89	D J	2.8	1.1	mg/Kg	5	⊗	6020A	Total/NA
Lead	84	D J	0.84	0.35	mg/Kg	5	⊗	6020A	Total/NA
Molybdenum	0.72	J D	1.4	0.56	mg/Kg	5	⊗	6020A	Total/NA
Nickel	37	D	1.4	0.56	mg/Kg	5	⊗	6020A	Total/NA
Silver	0.47	J D	0.56	0.21	mg/Kg	5	⊗	6020A	Total/NA
Vanadium	24	D	2.8	1.1	mg/Kg	5	⊗	6020A	Total/NA
Zinc	150	D J	14	5.6	mg/Kg	5	⊗	6020A	Total/NA
Mercury	0.12		0.035	0.012	mg/Kg	1	⊗	7471B	Total/NA

Client Sample ID: M062A

Lab Sample ID: 160-22833-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Benzene	47	J	280	11	ug/Kg	1	⊗	8260C DOD	Total/NA
1,2-Dichlorobenzene	270	J	280	15	ug/Kg	1	⊗	8260C DOD	Total/NA
1,4-Dichlorobenzene	45	J	280	17	ug/Kg	1	⊗	8260C DOD	Total/NA
cis-1,2-Dichloroethene	780		280	12	ug/Kg	1	⊗	8260C DOD	Total/NA
Ethylbenzene	89	J	280	9.4	ug/Kg	1	⊗	8260C DOD	Total/NA
Isopropylbenzene	39	J	280	11	ug/Kg	1	⊗	8260C DOD	Total/NA
Methylcyclohexane	150	J	570	14	ug/Kg	1	⊗	8260C DOD	Total/NA
Methylene Chloride	70	J	280	57	ug/Kg	1	⊗	8260C DOD	Total/NA
Trichloroethene	33	J	280	20	ug/Kg	1	⊗	8260C DOD	Total/NA
Vinyl chloride	160	J Q	570	31	ug/Kg	1	⊗	8260C DOD	Total/NA
Xylenes, Total	420	J	850	33	ug/Kg	1	⊗	8260C DOD	Total/NA
Toluene	1800		280	15	ug/Kg	1	⊗	8260C DOD	Total/NA
Gasoline Range Organics (C6-C12)	55		5.7	0.57	mg/Kg	1	⊗	8015B GRO DOD	Total/NA
Diesel Range Organics [C10-C28]	450	D	140	14	mg/Kg	5	⊗	8015B DRO	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M062A (Continued)

Lab Sample ID: 160-22833-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Motor Oil Range Organics [C28-C40]	490	D	140	14	mg/Kg	5	⊗	8015B DRO	Total/NA
Antimony	1.6	D	1.2	0.48	mg/Kg	5	⊗	6020A	Total/NA
Arsenic	9.6	D	2.4	0.97	mg/Kg	5	⊗	6020A	Total/NA
Barium	170	D	4.8	1.2	mg/Kg	5	⊗	6020A	Total/NA
Beryllium	0.22	J D	0.24	0.097	mg/Kg	5	⊗	6020A	Total/NA
Cadmium	0.72	D	0.12	0.058	mg/Kg	5	⊗	6020A	Total/NA
Chromium	52	D	2.4	1.1	mg/Kg	5	⊗	6020A	Total/NA
Cobalt	7.2	D	0.48	0.18	mg/Kg	5	⊗	6020A	Total/NA
Copper	81	D	2.4	0.97	mg/Kg	5	⊗	6020A	Total/NA
Lead	110	D	0.73	0.30	mg/Kg	5	⊗	6020A	Total/NA
Molybdenum	0.84	J D	1.2	0.48	mg/Kg	5	⊗	6020A	Total/NA
Nickel	52	D	1.2	0.48	mg/Kg	5	⊗	6020A	Total/NA
Vanadium	50	D	2.4	0.97	mg/Kg	5	⊗	6020A	Total/NA
Zinc	240	D	12	4.8	mg/Kg	5	⊗	6020A	Total/NA
Mercury	0.29		0.033	0.011	mg/Kg	1	⊗	7471B	Total/NA

Client Sample ID: M063A

Lab Sample ID: 160-22833-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	0.56	J	5.6	0.32	ug/Kg	1	⊗	8260C DOD	Total/NA
Methylene Chloride	6.4	J	11	1.8	ug/Kg	1	⊗	8260C DOD	Total/NA
Motor Oil Range Organics [C28-C40]	47	J D	140	14	mg/Kg	5	⊗	8015B DRO	Total/NA
Arsenic	2.1	J D	2.7	1.1	mg/Kg	5	⊗	6020A	Total/NA
Barium	38	D	5.5	1.4	mg/Kg	5	⊗	6020A	Total/NA
Beryllium	0.15	J D	0.27	0.11	mg/Kg	5	⊗	6020A	Total/NA
Cadmium	0.080	J D	0.14	0.066	mg/Kg	5	⊗	6020A	Total/NA
Chromium	29	D	2.7	1.2	mg/Kg	5	⊗	6020A	Total/NA
Cobalt	4.9	D	0.55	0.21	mg/Kg	5	⊗	6020A	Total/NA
Copper	7.1	D	2.7	1.1	mg/Kg	5	⊗	6020A	Total/NA
Lead	7.0	D	0.82	0.34	mg/Kg	5	⊗	6020A	Total/NA
Nickel	29	D	1.4	0.55	mg/Kg	5	⊗	6020A	Total/NA
Vanadium	21	D	2.7	1.1	mg/Kg	5	⊗	6020A	Total/NA
Zinc	27	D	14	5.5	mg/Kg	5	⊗	6020A	Total/NA
Mercury	0.034	J	0.037	0.012	mg/Kg	1	⊗	7471B	Total/NA

Client Sample ID: M064A

Lab Sample ID: 160-22833-4

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	1.9	J	6.1	0.83	ug/Kg	1	⊗	8260C DOD	Total/NA
Cyclohexane	2.1	J	12	0.44	ug/Kg	1	⊗	8260C DOD	Total/NA
1,2-Dichlorobenzene	71	Q	6.1	0.34	ug/Kg	1	⊗	8260C DOD	Total/NA
1,3-Dichlorobenzene	1.0	J Q	6.1	0.34	ug/Kg	1	⊗	8260C DOD	Total/NA
1,4-Dichlorobenzene	8.7	Q	6.1	0.73	ug/Kg	1	⊗	8260C DOD	Total/NA
cis-1,2-Dichloroethene	31		6.1	0.73	ug/Kg	1	⊗	8260C DOD	Total/NA
Ethylbenzene	12		6.1	0.36	ug/Kg	1	⊗	8260C DOD	Total/NA
Isopropylbenzene	22	Q	6.1	0.31	ug/Kg	1	⊗	8260C DOD	Total/NA
Methylcyclohexane	22		12	0.32	ug/Kg	1	⊗	8260C DOD	Total/NA
Methylene Chloride	47		12	1.9	ug/Kg	1	⊗	8260C DOD	Total/NA
Trichloroethene	2.7	J	6.1	0.47	ug/Kg	1	⊗	8260C DOD	Total/NA
Vinyl chloride	3.1	J	12	0.52	ug/Kg	1	⊗	8260C DOD	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M064A (Continued)

Lab Sample ID: 160-22833-4

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	96		12	1.0	ug/Kg	1	⊗	8260C DOD	Total/NA
Toluene	38		6.1	0.85	ug/Kg	1	⊗	8260C DOD	Total/NA
Gasoline Range Organics (C6-C12)	27		6.1	0.61	mg/Kg	1	⊗	8015B GRO DOD	Total/NA
Motor Oil Range Organics [C28-C40]	640	J D	1500	150	mg/Kg	50	⊗	8015B DRO	Total/NA
Antimony	0.69	J D	1.3	0.53	mg/Kg	5	⊗	6020A	Total/NA
Arsenic	5.8	D	2.6	1.1	mg/Kg	5	⊗	6020A	Total/NA
Barium	110	D	5.3	1.3	mg/Kg	5	⊗	6020A	Total/NA
Beryllium	0.22	J D	0.26	0.11	mg/Kg	5	⊗	6020A	Total/NA
Cadmium	2.2	D	0.13	0.063	mg/Kg	5	⊗	6020A	Total/NA
Chromium	33	D	2.6	1.2	mg/Kg	5	⊗	6020A	Total/NA
Cobalt	8.6	D	0.53	0.20	mg/Kg	5	⊗	6020A	Total/NA
Copper	46	D	2.6	1.1	mg/Kg	5	⊗	6020A	Total/NA
Lead	54	D	0.79	0.33	mg/Kg	5	⊗	6020A	Total/NA
Molybdenum	0.72	J D	1.3	0.53	mg/Kg	5	⊗	6020A	Total/NA
Nickel	54	D	1.3	0.53	mg/Kg	5	⊗	6020A	Total/NA
Silver	0.56	D	0.53	0.20	mg/Kg	5	⊗	6020A	Total/NA
Vanadium	36	D	2.6	1.1	mg/Kg	5	⊗	6020A	Total/NA
Zinc	130	D	13	5.3	mg/Kg	5	⊗	6020A	Total/NA
Mercury	0.099		0.035	0.012	mg/Kg	1	⊗	7471B	Total/NA

Client Sample ID: M065A

Lab Sample ID: 160-22833-5

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	1.9	J	5.6	0.32	ug/Kg	1	⊗	8260C DOD	Total/NA
Methylene Chloride	4.5	J Q	11	1.8	ug/Kg	1	⊗	8260C DOD	Total/NA
1,2,4-Trichlorobenzene	0.59	J	5.6	0.48	ug/Kg	1	⊗	8260C DOD	Total/NA
Motor Oil Range Organics [C28-C40]	110	J D	560	56	mg/Kg	20	⊗	8015B DRO	Total/NA
Arsenic	2.1	J D	2.6	1.0	mg/Kg	5	⊗	6020A	Total/NA
Barium	27	D	5.2	1.3	mg/Kg	5	⊗	6020A	Total/NA
Beryllium	0.12	J D	0.26	0.10	mg/Kg	5	⊗	6020A	Total/NA
Cadmium	0.067	J D	0.13	0.063	mg/Kg	5	⊗	6020A	Total/NA
Chromium	28	D	2.6	1.2	mg/Kg	5	⊗	6020A	Total/NA
Cobalt	4.3	D	0.52	0.20	mg/Kg	5	⊗	6020A	Total/NA
Copper	6.0	D	2.6	1.0	mg/Kg	5	⊗	6020A	Total/NA
Lead	7.0	D	0.78	0.33	mg/Kg	5	⊗	6020A	Total/NA
Nickel	28	D	1.3	0.52	mg/Kg	5	⊗	6020A	Total/NA
Vanadium	18	D	2.6	1.0	mg/Kg	5	⊗	6020A	Total/NA
Zinc	23	D	13	5.2	mg/Kg	5	⊗	6020A	Total/NA
Mercury	0.046		0.033	0.011	mg/Kg	1	⊗	7471B	Total/NA

Client Sample ID: M061A-R

Lab Sample ID: 160-22833-6

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Cyclohexane - DL	200	J D	6200	150	ug/Kg	10	⊗	8260C DOD	Total/NA
1,2-Dichlorobenzene - DL	6400	D Q	3100	170	ug/Kg	10	⊗	8260C DOD	Total/NA
1,4-Dichlorobenzene - DL	670	J D Q	3100	190	ug/Kg	10	⊗	8260C DOD	Total/NA
cis-1,2-Dichloroethene - DL	38000	D	3100	130	ug/Kg	10	⊗	8260C DOD	Total/NA
trans-1,2-Dichloroethene - DL	460	J D	6200	100	ug/Kg	10	⊗	8260C DOD	Total/NA
Ethylbenzene - DL	1500	J D	3100	100	ug/Kg	10	⊗	8260C DOD	Total/NA
Isopropylbenzene - DL	2100	J D	3100	120	ug/Kg	10	⊗	8260C DOD	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M061A-R (Continued)

Lab Sample ID: 160-22833-6

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Methylcyclohexane - DL	4200	J D	6200	160	ug/Kg	10	⊗	8260C DOD	Total/NA
Trichloroethene - DL	4400	D	3100	220	ug/Kg	10	⊗	8260C DOD	Total/NA
1,2,4-Trichlorobenzene - DL	980	J D Q	3100	180	ug/Kg	10	⊗	8260C DOD	Total/NA
Vinyl chloride - DL	4200	J D Q	6200	340	ug/Kg	10	⊗	8260C DOD	Total/NA
Xylenes, Total - DL	12000		9400	360	ug/Kg	10	⊗	8260C DOD	Total/NA
Toluene - DL	7600	D	3100	160	ug/Kg	10	⊗	8260C DOD	Total/NA
Gasoline Range Organics (C6-C12)	1900	D	130	13	mg/Kg	20	⊗	8015B GRO DOD	Total/NA
Diesel Range Organics [C10-C28]	4100	D	3700	370	mg/Kg	20	⊗	8015B DRO	Total/NA
Motor Oil Range Organics [C28-C40]	4600	D	3700	370	mg/Kg	20	⊗	8015B DRO	Total/NA
Antimony	23	D	2.6	1.1	mg/Kg	10	⊗	6020A	Total/NA
Arsenic	10	D	5.3	2.1	mg/Kg	10	⊗	6020A	Total/NA
Barium	650	D	11	2.6	mg/Kg	10	⊗	6020A	Total/NA
Cadmium	130	D	0.13	0.063	mg/Kg	5	⊗	6020A	Total/NA
Chromium	280	D	5.3	2.4	mg/Kg	10	⊗	6020A	Total/NA
Cobalt	9.3	D	1.1	0.39	mg/Kg	10	⊗	6020A	Total/NA
Copper	860	D	5.3	2.1	mg/Kg	10	⊗	6020A	Total/NA
Lead	2200	D	1.6	0.66	mg/Kg	10	⊗	6020A	Total/NA
Molybdenum	19	D	2.6	1.1	mg/Kg	10	⊗	6020A	Total/NA
Nickel	93	D	2.6	1.1	mg/Kg	10	⊗	6020A	Total/NA
Silver	11	D	1.1	0.39	mg/Kg	10	⊗	6020A	Total/NA
Vanadium	54	D	5.3	2.1	mg/Kg	10	⊗	6020A	Total/NA
Zinc	2900	D	26	11	mg/Kg	10	⊗	6020A	Total/NA
Mercury	0.31		0.038	0.013	mg/Kg	1	⊗	7471B	Total/NA

Client Sample ID: M066A

Lab Sample ID: 160-22833-7

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Acetone	17	J	23	7.4	ug/Kg	1	⊗	8260C DOD	Total/NA
1,2-Dichlorobenzene	9.6		5.7	0.32	ug/Kg	1	⊗	8260C DOD	Total/NA
1,4-Dichlorobenzene	1.3	J	5.7	0.68	ug/Kg	1	⊗	8260C DOD	Total/NA
cis-1,2-Dichloroethene	4.5	J	5.7	0.68	ug/Kg	1	⊗	8260C DOD	Total/NA
Isopropylbenzene	0.56	J	5.7	0.29	ug/Kg	1	⊗	8260C DOD	Total/NA
Methylcyclohexane	0.60	J	11	0.30	ug/Kg	1	⊗	8260C DOD	Total/NA
Methylene Chloride	16		11	1.8	ug/Kg	1	⊗	8260C DOD	Total/NA
Xylenes, Total	4.7	J	11	0.97	ug/Kg	1	⊗	8260C DOD	Total/NA
Toluene	3.2	J	5.7	0.80	ug/Kg	1	⊗	8260C DOD	Total/NA
Gasoline Range Organics (C6-C12)	8.4		5.7	0.57	mg/Kg	1	⊗	8015B GRO DOD	Total/NA
Motor Oil Range Organics [C28-C40]	10	J	29	2.9	mg/Kg	1	⊗	8015B DRO	Total/NA
Antimony	1.0	J D	1.3	0.50	mg/Kg	5	⊗	6020A	Total/NA
Arsenic	10	D	2.5	1.0	mg/Kg	5	⊗	6020A	Total/NA
Barium	36	D	5.0	1.3	mg/Kg	5	⊗	6020A	Total/NA
Beryllium	0.14	J D	0.25	0.10	mg/Kg	5	⊗	6020A	Total/NA
Cadmium	2.0	D	0.13	0.060	mg/Kg	5	⊗	6020A	Total/NA
Chromium	30	D	2.5	1.1	mg/Kg	5	⊗	6020A	Total/NA
Cobalt	6.0	D	0.50	0.19	mg/Kg	5	⊗	6020A	Total/NA
Copper	35	D	2.5	1.0	mg/Kg	5	⊗	6020A	Total/NA
Lead	38	D	0.75	0.31	mg/Kg	5	⊗	6020A	Total/NA
Molybdenum	1.2	J D	1.3	0.50	mg/Kg	5	⊗	6020A	Total/NA
Nickel	31	D	1.3	0.50	mg/Kg	5	⊗	6020A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M066A (Continued)

Lab Sample ID: 160-22833-7

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Silver	0.24	J D	0.50	0.19	mg/Kg	5	⊗	6020A	Total/NA
Vanadium	21	D	2.5	1.0	mg/Kg	5	⊗	6020A	Total/NA
Zinc	810	D	13	5.0	mg/Kg	5	⊗	6020A	Total/NA
Mercury	0.018	J	0.035	0.012	mg/Kg	1	⊗	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M061A

Date Collected: 06/07/17 17:00
 Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-1

Matrix: Solid

Percent Solids: 88.8

Method: 8260C DOD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	140	U	1100	96	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Benzene	57	U	280	11	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Bromoform	57	U	280	18	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Bromodichloromethane	57	U	280	12	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Bromomethane	57	U Q	570	27	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
2-Butanone (MEK)	140	U	570	75	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Carbon disulfide	57	U	280	14	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Carbon tetrachloride	57	U	280	20	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Chlorobenzene	57	U	280	12	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Dibromochloromethane	57	U	280	11	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Chloroethane	57	U	570	15	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Chloroform	57	U	280	12	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Chloromethane	57	U Q	570	28	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Cyclohexane	57	U	570	14	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
1,2-Dibromo-3-Chloropropane	140	U	570	74	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
1,2-Dichlorobenzene	580		280	15	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
1,3-Dichlorobenzene	10 J		280	8.6	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
1,4-Dichlorobenzene	70 J		280	17	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
1,1-Dichloroethane	57	U	280	11	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
1,2-Dichloroethane	57	U	280	13	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
cis-1,2-Dichloroethene	8200		280	12	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
trans-1,2-Dichloroethene	34 J		570	9.2	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
1,1-Dichloroethene	57	U	280	27	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
1,2-Dichloropropane	57	U	280	18	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
cis-1,3-Dichloropropene	57	U	570	7.3	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
trans-1,3-Dichloropropene	57	U	280	11	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Ethylbenzene	27 J		280	9.4	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	57	U	280	32	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
2-Hexanone	57	U	1100	14	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Isopropylbenzene	99 J		280	11	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Methyl acetate	570	U	1400	61	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Methylcyclohexane	100 J		570	14	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Methylene Chloride	66 J		280	57	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
4-Methyl-2-pentanone (MIBK)	57	U	1100	23	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Methyl tert-butyl ether	57	U	280	11	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Trichlorofluoromethane	57	U	280	15	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Trichloroethene	280		280	20	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
1,2,4-Trichlorobenzene	57	U	280	17	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
1,1,1-Trichloroethane	57	U	280	11	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Vinyl chloride	69 J Q		570	31	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Xylenes, Total	280 J		850	33	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
1,1,2,2-Tetrachloroethane	57	U	280	17	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
1,1,2-Trichloroethane	57	U	280	34	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Styrene	57	U	280	16	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Tetrachloroethene	57	U	280	23	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Toluene	130 J		280	14	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
Dichlorodifluoromethane	57	U Q	570	32	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1
1,2-Dibromoethane	57	U	280	19	ug/Kg	⌚	06/19/17 17:46	07/02/17 16:32	1

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M061A

Date Collected: 06/07/17 17:00
Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-1

Matrix: Solid

Percent Solids: 88.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		71 - 136	06/19/17 17:46	07/02/17 16:32	1
4-Bromofluorobenzene (Surr)	118		79 - 119	06/19/17 17:46	07/02/17 16:32	1
Dibromofluoromethane (Surr)	89		78 - 119	06/19/17 17:46	07/02/17 16:32	1
Toluene-d8 (Surr)	90		85 - 116	06/19/17 17:46	07/02/17 16:32	1

Method: 8015B GRO DOD - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	280	D	28	2.8	mg/Kg	✉	06/21/17 14:19	07/02/17 06:22	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	80		45 - 130				06/21/17 14:19	07/02/17 06:22	5

Method: 8015B DRO - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	720	J D	2800	280	mg/Kg	✉	06/15/17 11:51	07/13/17 16:55	100
Motor Oil Range Organics [C28-C40]	790	J D	2800	280	mg/Kg	✉	06/15/17 11:51	07/13/17 16:55	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	0	D	45 - 130				06/15/17 11:51	07/13/17 16:55	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.73	J D	1.4	0.56	mg/Kg	✉	07/05/17 10:33	07/11/17 07:43	5
Arsenic	3.4	D	2.8	1.1	mg/Kg	✉	07/05/17 10:33	07/11/17 07:43	5
Barium	48	D J	5.6	1.4	mg/Kg	✉	07/05/17 10:33	07/11/17 07:43	5
Beryllium	0.15	J D	0.28	0.11	mg/Kg	✉	07/05/17 10:33	07/11/17 07:43	5
Cadmium	4.8	D J	0.14	0.068	mg/Kg	✉	07/05/17 10:33	07/11/17 19:43	5
Chromium	57	D	2.8	1.3	mg/Kg	✉	07/05/17 10:33	07/11/17 07:43	5
Cobalt	5.9	D	0.56	0.21	mg/Kg	✉	07/05/17 10:33	07/11/17 07:43	5
Copper	89	D J	2.8	1.1	mg/Kg	✉	07/05/17 10:33	07/11/17 07:43	5
Lead	84	D J	0.84	0.35	mg/Kg	✉	07/05/17 10:33	07/11/17 07:43	5
Molybdenum	0.72	J D	1.4	0.56	mg/Kg	✉	07/05/17 10:33	07/11/17 07:43	5
Nickel	37	D	1.4	0.56	mg/Kg	✉	07/05/17 10:33	07/11/17 07:43	5
Selenium	1.1	U	1.4	0.90	mg/Kg	✉	07/05/17 10:33	07/11/17 07:43	5
Silver	0.47	J D	0.56	0.21	mg/Kg	✉	07/05/17 10:33	07/11/17 07:43	5
Thallium	1.1	U	1.4	0.56	mg/Kg	✉	07/05/17 10:33	07/11/17 07:43	5
Vanadium	24	D	2.8	1.1	mg/Kg	✉	07/05/17 10:33	07/11/17 07:43	5
Zinc	150	D J	14	5.6	mg/Kg	✉	07/05/17 10:33	07/11/17 07:43	5

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12		0.035	0.012	mg/Kg	✉	06/21/17 09:47	06/22/17 16:03	1

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)					
Radium-226	0.499		0.0565	0.0767	1.00	pCi/g	06/15/17 14:51	07/07/17 16:04	1
Cesium-137	-0.0139	U	0.0238	0.0238	0.113	pCi/g	06/15/17 14:51	07/07/17 16:04	1
Cobalt-60	0.0151	U	0.0200	0.0201	0.0361	pCi/g	06/15/17 14:51	07/07/17 16:04	1

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M061A
Date Collected: 06/07/17 17:00
Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-1
Matrix: Solid
Percent Solids: 88.8

Method: 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Strontium-90	-0.00231	U	0.109	0.109	0.331	0.191	pCi/g	06/16/17 09:32	06/28/17 15:20	1
Carrier										
Sr Carrier	83.8		40 - 110					06/16/17 09:32	06/28/17 15:20	1
Y Carrier	102		40 - 110					06/16/17 09:32	06/28/17 15:20	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Thorium-228	0.459		0.128	0.134	1.00	0.0678	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Thorium-230	0.384		0.119	0.123	1.00	0.0760	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Thorium-232	0.455		0.126	0.132	1.00	0.0573	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Tracer										
Thorium-229	92.9		30 - 110					06/21/17 12:21	07/01/17 16:09	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Uranium-233/234	0.277		0.0722	0.0759	0.742	0.0141	pCi/g	06/21/17 12:21	07/03/17 15:31	1
Uranium-235/236	0.0117	U	0.0165	0.0166	0.742	0.0175	pCi/g	06/21/17 12:21	07/03/17 15:31	1
Uranium-238	0.286		0.0733	0.0771	0.742	0.0141	pCi/g	06/21/17 12:21	07/03/17 15:31	1
Tracer										
Uranium-232	95.3		30 - 110					06/21/17 12:21	07/03/17 15:31	1

Client Sample ID: M062A

Date Collected: 06/07/17 17:00

Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-2

Matrix: Solid

Percent Solids: 88.7

Method: 8260C DOD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
							06/19/17 17:46	07/02/17 16:57	
Acetone	140	U	1100	97	ug/Kg	⊗	06/19/17 17:46	07/02/17 16:57	1
Benzene	47	J	280	11	ug/Kg	⊗	06/19/17 17:46	07/02/17 16:57	1
Bromoform	57	U	280	18	ug/Kg	⊗	06/19/17 17:46	07/02/17 16:57	1
Bromodichloromethane	57	U	280	12	ug/Kg	⊗	06/19/17 17:46	07/02/17 16:57	1
Bromomethane	57	U Q	570	27	ug/Kg	⊗	06/19/17 17:46	07/02/17 16:57	1
2-Butanone (MEK)	140	U	570	75	ug/Kg	⊗	06/19/17 17:46	07/02/17 16:57	1
Carbon disulfide	57	U	280	14	ug/Kg	⊗	06/19/17 17:46	07/02/17 16:57	1
Carbon tetrachloride	57	U	280	20	ug/Kg	⊗	06/19/17 17:46	07/02/17 16:57	1
Chlorobenzene	57	U	280	12	ug/Kg	⊗	06/19/17 17:46	07/02/17 16:57	1
Dibromochloromethane	57	U	280	11	ug/Kg	⊗	06/19/17 17:46	07/02/17 16:57	1
Chloroethane	57	U	570	15	ug/Kg	⊗	06/19/17 17:46	07/02/17 16:57	1
Chloroform	57	U	280	12	ug/Kg	⊗	06/19/17 17:46	07/02/17 16:57	1
Chloromethane	57	U Q	570	28	ug/Kg	⊗	06/19/17 17:46	07/02/17 16:57	1
Cyclohexane	57	U	570	14	ug/Kg	⊗	06/19/17 17:46	07/02/17 16:57	1
1,2-Dibromo-3-Chloropropane	140	U	570	74	ug/Kg	⊗	06/19/17 17:46	07/02/17 16:57	1

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M062A

Date Collected: 06/07/17 17:00

Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-2

Matrix: Solid

Percent Solids: 88.7

Method: 8260C DOD - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	270	J	280	15	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
1,3-Dichlorobenzene	57	U	280	8.6	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
1,4-Dichlorobenzene	45	J	280	17	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
1,1-Dichloroethane	57	U	280	11	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
1,2-Dichloroethane	57	U	280	13	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
cis-1,2-Dichloroethene	780		280	12	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
trans-1,2-Dichloroethene	57	U	570	9.2	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
1,1-Dichloroethene	57	U	280	28	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
1,2-Dichloropropane	57	U	280	18	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
cis-1,3-Dichloropropene	57	U	570	7.3	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
trans-1,3-Dichloropropene	57	U	280	11	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
Ethylbenzene	89	J	280	9.4	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	57	U	280	32	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
2-Hexanone	57	U	1100	14	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
Isopropylbenzene	39	J	280	11	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
Methyl acetate	570	U	1400	61	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
Methylcyclohexane	150	J	570	14	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
Methylene Chloride	70	J	280	57	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
4-Methyl-2-pentanone (MIBK)	57	U	1100	23	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
Methyl tert-butyl ether	57	U	280	11	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
Trichlorofluoromethane	57	U	280	16	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
Trichloroethene	33	J	280	20	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
1,2,4-Trichlorobenzene	57	U	280	17	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
1,1,1-Trichloroethane	57	U	280	11	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
Vinyl chloride	160	J Q	570	31	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
Xylenes, Total	420	J	850	33	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
1,1,2,2-Tetrachloroethane	57	U	280	17	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
1,1,2-Trichloroethane	57	U	280	34	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
Styrene	57	U	280	16	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
Tetrachloroethene	57	U	280	23	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
Toluene	1800		280	15	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
Dichlorodifluoromethane	57	U Q	570	32	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1
1,2-Dibromoethane	57	U	280	19	ug/Kg	✉	06/19/17 17:46	07/02/17 16:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		71 - 136	06/19/17 17:46	07/02/17 16:57	1
4-Bromofluorobenzene (Surr)	103		79 - 119	06/19/17 17:46	07/02/17 16:57	1
Dibromofluoromethane (Surr)	90		78 - 119	06/19/17 17:46	07/02/17 16:57	1
Toluene-d8 (Surr)	91		85 - 116	06/19/17 17:46	07/02/17 16:57	1

Method: 8015B GRO DOD - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	55		5.7	0.57	mg/Kg	✉	06/21/17 14:19	06/29/17 21:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	119		45 - 130	06/21/17 14:19	06/29/17 21:34	1

Method: 8015B DRO - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	450	D	140	14	mg/Kg	✉	06/15/17 11:51	07/13/17 17:21	5

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M062A

Date Collected: 06/07/17 17:00
 Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-2

Matrix: Solid

Percent Solids: 88.7

Method: 8015B DRO - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil Range Organics [C28-C40]	490	D	140	14	mg/Kg	⊗	06/15/17 11:51	07/13/17 17:21	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	68		45 - 130				06/15/17 11:51	07/13/17 17:21	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.6	D	1.2	0.48	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:37	5
Arsenic	9.6	D	2.4	0.97	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:37	5
Barium	170	D	4.8	1.2	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:37	5
Beryllium	0.22	J D	0.24	0.097	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:37	5
Cadmium	0.72	D	0.12	0.058	mg/Kg	⊗	07/05/17 10:33	07/11/17 20:05	5
Chromium	52	D	2.4	1.1	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:37	5
Cobalt	7.2	D	0.48	0.18	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:37	5
Copper	81	D	2.4	0.97	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:37	5
Lead	110	D	0.73	0.30	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:37	5
Molybdenum	0.84	J D	1.2	0.48	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:37	5
Nickel	52	D	1.2	0.48	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:37	5
Selenium	0.97	U	1.2	0.77	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:37	5
Silver	0.36	U	0.48	0.18	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:37	5
Thallium	0.97	U	1.2	0.48	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:37	5
Vanadium	50	D	2.4	0.97	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:37	5
Zinc	240	D	12	4.8	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:37	5

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.29		0.033	0.011	mg/Kg	⊗	06/21/17 09:47	06/22/17 16:05	1

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Radium-226	0.424		0.0568	0.0719	1.00	0.0609	pCi/g	06/15/17 14:51	07/10/17 11:38	1
Cesium-137	-0.0157	U	0.0265	0.0266	0.113	0.0441	pCi/g	06/15/17 14:51	07/10/17 11:38	1
Cobalt-60	0.00322	U	0.0263	0.0263	0.0361	0.0371	pCi/g	06/15/17 14:51	07/10/17 11:38	1

Method: 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Strontium-90	0.0340	U	0.157	0.157	0.331	0.268	pCi/g	06/16/17 09:32	06/28/17 15:24	1
Carrier	%Yield	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
Sr Carrier	85.9		40 - 110					06/16/17 09:32	06/28/17 15:24	1
Y Carrier	97.9		40 - 110					06/16/17 09:32	06/28/17 15:24	1

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M062A

Date Collected: 06/07/17 17:00

Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-2

Matrix: Solid

Percent Solids: 88.7

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.481		0.137	0.143	1.00	0.0837	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Thorium-230	0.348		0.115	0.119	1.00	0.0655	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Thorium-232	0.385		0.119	0.123	1.00	0.0275	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Thorium-229	84.9		30 - 110					06/21/17 12:21	07/01/17 16:09	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	0.443		0.100	0.107	0.742	0.0598	pCi/g	06/21/17 12:21	07/01/17 16:10	1
Uranium-235/236	0.0234	U	0.0267	0.0268	0.742	0.0361	pCi/g	06/21/17 12:21	07/01/17 16:10	1
Uranium-238	0.262		0.0741	0.0773	0.742	0.0157	pCi/g	06/21/17 12:21	07/01/17 16:10	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Uranium-232	88.1		30 - 110					06/21/17 12:21	07/01/17 16:10	1

Client Sample ID: M063A

Date Collected: 06/07/17 17:00

Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-3

Matrix: Solid

Percent Solids: 87.7

Method: 8260C DOD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)					
Acetone	11	U	23	7.3	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Benzene	1.1	U	5.6	0.29	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Bromoform	1.1	U	5.6	0.41	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Bromodichloromethane	1.1	U	5.6	0.29	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Bromomethane	5.6	U	11	1.2	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
2-Butanone (MEK)	5.6	U	23	2.2	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Carbon disulfide	1.1	U	5.6	0.77	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Carbon tetrachloride	1.1	U	5.6	0.58	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Chlorobenzene	1.1	U	5.6	0.43	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Dibromochloromethane	1.1	U	5.6	0.46	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Chloroethane	1.1	U	11	0.58	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Chloroform	1.1	U	5.6	0.42	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Chloromethane	5.6	U	11	0.73	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Cyclohexane	1.1	U	11	0.41	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
1,2-Dibromo-3-Chloropropane	5.6	U	11	1.6	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
1,2-Dichlorobenzene	0.56	J	5.6	0.32	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
1,3-Dichlorobenzene	1.1	U	5.6	0.32	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
1,4-Dichlorobenzene	1.1	U	5.6	0.68	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
1,1-Dichloroethane	1.1	U	5.6	0.44	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
1,2-Dichloroethane	1.1	U	5.6	0.98	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
cis-1,2-Dichloroethene	1.1	U	5.6	0.67	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
trans-1,2-Dichloroethene	1.1	U	5.6	1.1	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
1,1-Dichloroethene	5.6	U	5.6	1.8	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
1,2-Dichloropropane	1.1	U	5.6	0.43	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M063A

Date Collected: 06/07/17 17:00

Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-3

Matrix: Solid

Percent Solids: 87.7

Method: 8260C DOD - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	1.1	U	5.6	0.67	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
trans-1,3-Dichloropropene	1.1	U	5.6	0.39	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Ethylbenzene	1.1	U	5.6	0.34	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6	U	5.6	1.9	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
2-Hexanone	5.6	U	23	2.0	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Isopropylbenzene	1.1	U	5.6	0.29	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Methyl acetate	5.6	U	28	1.6	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Methylcyclohexane	1.1	U	11	0.29	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Methylene Chloride	6.4	J	11	1.8	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
4-Methyl-2-pentanone (MIBK)	5.6	U	23	0.83	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Methyl tert-butyl ether	1.1	U	5.6	0.54	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Trichlorofluoromethane	1.1	U	5.6	0.56	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Trichloroethene	1.1	U	5.6	0.43	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
1,2,4-Trichlorobenzene	1.1	U	5.6	0.48	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
1,1,1-Trichloroethane	1.1	U	5.6	0.49	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Vinyl chloride	1.1	U	11	0.48	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Xylenes, Total	5.6	U	11	0.96	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
1,1,2,2-Tetrachloroethane	1.1	U	5.6	0.45	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
1,1,2-Trichloroethane	1.1	U	5.6	0.65	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Styrene	1.1	U	5.6	0.39	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Tetrachloroethene	1.1	U	5.6	0.36	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Toluene	1.1	U	5.6	0.79	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Dichlorodifluoromethane	5.6	U	11	1.5	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
1,2-Dibromoethane	1.1	U	5.6	0.79	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		71 - 136				06/20/17 20:18	06/21/17 01:17	1
4-Bromofluorobenzene (Surr)	97		79 - 119				06/20/17 20:18	06/21/17 01:17	1
Dibromofluoromethane (Surr)	100		78 - 119				06/20/17 20:18	06/21/17 01:17	1
Toluene-d8 (Surr)	87		85 - 116				06/20/17 20:18	06/21/17 01:17	1

Method: 8015B GRO DOD - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	1.4	U	5.7	0.57	mg/Kg	⊗	06/21/17 14:19	06/29/17 22:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	106		45 - 130				06/21/17 14:19	06/29/17 22:03	1

Method: 8015B DRO - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	28	U	140	14	mg/Kg	⊗	06/15/17 11:51	07/13/17 17:48	5
Motor Oil Range Organics [C28-C40]	47	J D	140	14	mg/Kg	⊗	06/15/17 11:51	07/13/17 17:48	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	76		45 - 130				06/15/17 11:51	07/13/17 17:48	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.1	U	1.4	0.55	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:44	5
Arsenic	2.1	J D	2.7	1.1	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:44	5

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M063A

Lab Sample ID: 160-22833-3

Date Collected: 06/07/17 17:00

Matrix: Solid

Date Received: 06/14/17 09:20

Percent Solids: 87.7

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	38	D	5.5	1.4	mg/Kg	⌚	07/05/17 10:33	07/11/17 08:44	5
Beryllium	0.15	J D	0.27	0.11	mg/Kg	⌚	07/05/17 10:33	07/11/17 08:44	5
Cadmium	0.080	J D	0.14	0.066	mg/Kg	⌚	07/05/17 10:33	07/11/17 20:10	5
Chromium	29	D	2.7	1.2	mg/Kg	⌚	07/05/17 10:33	07/11/17 08:44	5
Cobalt	4.9	D	0.55	0.21	mg/Kg	⌚	07/05/17 10:33	07/11/17 08:44	5
Copper	7.1	D	2.7	1.1	mg/Kg	⌚	07/05/17 10:33	07/11/17 08:44	5
Lead	7.0	D	0.82	0.34	mg/Kg	⌚	07/05/17 10:33	07/11/17 08:44	5
Molybdenum	1.1	U	1.4	0.55	mg/Kg	⌚	07/05/17 10:33	07/11/17 08:44	5
Nickel	29	D	1.4	0.55	mg/Kg	⌚	07/05/17 10:33	07/11/17 08:44	5
Selenium	1.1	U	1.4	0.88	mg/Kg	⌚	07/05/17 10:33	07/11/17 08:44	5
Silver	0.41	U	0.55	0.21	mg/Kg	⌚	07/05/17 10:33	07/11/17 08:44	5
Thallium	1.1	U	1.4	0.55	mg/Kg	⌚	07/05/17 10:33	07/11/17 08:44	5
Vanadium	21	D	2.7	1.1	mg/Kg	⌚	07/05/17 10:33	07/11/17 08:44	5
Zinc	27	D	14	5.5	mg/Kg	⌚	07/05/17 10:33	07/11/17 08:44	5

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.034	J	0.037	0.012	mg/Kg	⌚	06/21/17 09:47	06/22/17 16:08	1

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-226	0.485		0.0507	0.0715	1.00	0.0381	pCi/g	06/15/17 14:51	07/07/17 16:03	1
Cesium-137	-0.0145	U	0.0214	0.0214	0.113	0.0354	pCi/g	06/15/17 14:51	07/07/17 16:03	1
Cobalt-60	-0.00359	U	0.0257	0.0257	0.0361	0.0271	pCi/g	06/15/17 14:51	07/07/17 16:03	1

Method: 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Strontium-90	0.159	U	0.143	0.144	0.331	0.232	pCi/g	06/16/17 09:32	06/28/17 15:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Sr Carrier	84.3		40 - 110					06/16/17 09:32	06/28/17 15:24	1
Y Carrier	96.8		40 - 110					06/16/17 09:32	06/28/17 15:24	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.383		0.126	0.130	1.00	0.0818	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Thorium-230	0.386		0.130	0.134	1.00	0.102	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Thorium-232	0.352		0.117	0.120	1.00	0.0464	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Thorium-229	78.1		30 - 110					06/21/17 12:21	07/01/17 16:09	1

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M063A

Date Collected: 06/07/17 17:00

Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-3

Matrix: Solid

Percent Solids: 87.7

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Uranium-233/234	0.363		0.0856	0.0909	0.742	0.0443	pCi/g	06/21/17 12:21	07/01/17 16:10	1
Uranium-235/236	0.00949	U	0.0177	0.0177	0.742	0.0331	pCi/g	06/21/17 12:21	07/01/17 16:10	1
Uranium-238	0.322		0.0811	0.0855	0.742	0.0465	pCi/g	06/21/17 12:21	07/01/17 16:10	1
Tracer	%Yield	Qualifier	Limits						Prepared	Analyzed
Uranium-232	88.8		30 - 110						06/21/17 12:21	07/01/17 16:10

Client Sample ID: M064A

Date Collected: 06/07/17 17:00

Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-4

Matrix: Solid

Percent Solids: 81.7

Method: 8260C DOD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	12	U	24	7.9	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Benzene	1.2	U	6.1	0.31	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Bromoform	1.2	U Q	6.1	0.45	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Bromodichloromethane	1.2	U	6.1	0.31	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Bromomethane	6.1	U	12	1.3	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
2-Butanone (MEK)	6.1	U	24	2.3	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Carbon disulfide	1.9 J		6.1	0.83	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Carbon tetrachloride	1.2	U	6.1	0.62	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Chlorobenzene	1.2	U	6.1	0.47	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Dibromochloromethane	1.2	U	6.1	0.49	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Chloroethane	1.2	U	12	0.63	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Chloroform	1.2	U	6.1	0.46	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Chloromethane	6.1	U	12	0.79	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Cyclohexane	2.1 J		12	0.44	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
1,2-Dibromo-3-Chloropropane	6.1	U Q	12	1.8	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
1,2-Dichlorobenzene	71 Q		6.1	0.34	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
1,3-Dichlorobenzene	1.0 J Q		6.1	0.34	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
1,4-Dichlorobenzene	8.7 Q		6.1	0.73	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
1,1-Dichloroethane	1.2	U	6.1	0.48	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
1,2-Dichloroethane	1.2	U	6.1	1.1	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
cis-1,2-Dichloroethene	31		6.1	0.73	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
trans-1,2-Dichloroethene	1.2	U	6.1	1.1	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
1,1-Dichloroethene	6.1	U	6.1	2.0	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
1,2-Dichloropropane	1.2	U	6.1	0.47	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
cis-1,3-Dichloropropene	1.2	U	6.1	0.72	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
trans-1,3-Dichloropropene	1.2	U	6.1	0.43	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Ethylbenzene	12		6.1	0.36	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	6.1	U	6.1	2.0	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
2-Hexanone	6.1	U	24	2.2	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Isopropylbenzene	22 Q		6.1	0.31	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Methyl acetate	6.1	U	30	1.7	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Methylcyclohexane	22		12	0.32	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Methylene Chloride	47		12	1.9	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
4-Methyl-2-pentanone (MIBK)	6.1	U	24	0.89	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Methyl tert-butyl ether	1.2	U	6.1	0.58	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M064A
Date Collected: 06/07/17 17:00
Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-4
Matrix: Solid
Percent Solids: 81.7

Method: 8260C DOD - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	1.2	U	6.1	0.61	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Trichloroethene	2.7	J	6.1	0.47	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
1,2,4-Trichlorobenzene	1.2	U Q	6.1	0.52	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
1,1,1-Trichloroethane	1.2	U	6.1	0.53	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Vinyl chloride	3.1	J	12	0.52	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Xylenes, Total	96		12	1.0	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
1,1,2,2-Tetrachloroethane	1.2	U Q	6.1	0.49	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
1,1,2-Trichloroethane	1.2	U	6.1	0.70	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Styrene	1.2	U	6.1	0.42	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Tetrachloroethene	1.2	U	6.1	0.39	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Toluene	38		6.1	0.85	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Dichlorodifluoromethane	6.1	U	12	1.6	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
1,2-Dibromoethane	1.2	U	6.1	0.85	ug/Kg	⊗	06/20/17 20:18	06/21/17 01:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		71 - 136				06/20/17 20:18	06/21/17 01:43	1
4-Bromofluorobenzene (Surr)	184	Q	79 - 119				06/20/17 20:18	06/21/17 01:43	1
Dibromofluoromethane (Surr)	97		78 - 119				06/20/17 20:18	06/21/17 01:43	1
Toluene-d8 (Surr)	99		85 - 116				06/20/17 20:18	06/21/17 01:43	1

Method: 8015B GRO DOD - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	27		6.1	0.61	mg/Kg	⊗	06/21/17 14:19	06/29/17 22:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	153	Q	45 - 130				06/21/17 14:19	06/29/17 22:33	1

Method: 8015B DRO - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	310	U	1500	150	mg/Kg	⊗	06/15/17 11:51	07/13/17 18:15	50
Motor Oil Range Organics [C28-C40]	640	J D	1500	150	mg/Kg	⊗	06/15/17 11:51	07/13/17 18:15	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl (Surr)	0	D	45 - 130				06/15/17 11:51	07/13/17 18:15	50

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.69	J D	1.3	0.53	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:50	5
Arsenic	5.8	D	2.6	1.1	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:50	5
Barium	110	D	5.3	1.3	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:50	5
Beryllium	0.22	J D	0.26	0.11	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:50	5
Cadmium	2.2	D	0.13	0.063	mg/Kg	⊗	07/05/17 10:33	07/11/17 20:28	5
Chromium	33	D	2.6	1.2	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:50	5
Cobalt	8.6	D	0.53	0.20	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:50	5
Copper	46	D	2.6	1.1	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:50	5
Lead	54	D	0.79	0.33	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:50	5
Molybdenum	0.72	J D	1.3	0.53	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:50	5
Nickel	54	D	1.3	0.53	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:50	5
Selenium	1.1	U	1.3	0.84	mg/Kg	⊗	07/05/17 10:33	07/11/17 08:50	5

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M064A

Date Collected: 06/07/17 17:00

Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-4

Matrix: Solid

Percent Solids: 81.7

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.56	D	0.53	0.20	mg/Kg	⌚	07/05/17 10:33	07/11/17 08:50	5
Thallium	1.1	U	1.3	0.53	mg/Kg	⌚	07/05/17 10:33	07/11/17 08:50	5
Vanadium	36	D	2.6	1.1	mg/Kg	⌚	07/05/17 10:33	07/11/17 08:50	5
Zinc	130	D	13	5.3	mg/Kg	⌚	07/05/17 10:33	07/11/17 08:50	5

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.099		0.035	0.012	mg/Kg	⌚	06/21/17 09:47	06/22/17 16:10	1

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Radium-226	0.473		0.0775	0.0918	1.00	0.0671	pCi/g	06/15/17 14:51	07/10/17 11:42	1
Cesium-137	-0.0177	U	0.0267	0.0268	0.113	0.0443	pCi/g	06/15/17 14:51	07/10/17 11:42	1
Cobalt-60	-0.0119	U	0.0361	0.0361	0.0361	0.0378	pCi/g	06/15/17 14:51	07/10/17 11:42	1

Method: 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Strontium-90	-0.0657	U	0.139	0.139	0.331	0.246	pCi/g	06/16/17 09:32	06/28/17 15:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Sr Carrier	85.3		40 - 110					06/16/17 09:32	06/28/17 15:24	1
Y Carrier	101		40 - 110					06/16/17 09:32	06/28/17 15:24	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.401		0.116	0.121	1.00	0.0737	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Thorium-230	0.305		0.102	0.105	1.00	0.0671	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Thorium-232	0.264		0.0939	0.0965	1.00	0.0616	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Thorium-229	91.8		30 - 110					06/21/17 12:21	07/01/17 16:09	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	0.291		0.0752	0.0790	0.742	0.0313	pCi/g	06/21/17 12:21	07/01/17 16:10	1
Uranium-235/236	0.00938	U	0.0175	0.0175	0.742	0.0327	pCi/g	06/21/17 12:21	07/01/17 16:10	1
Uranium-238	0.335		0.0801	0.0850	0.742	0.0263	pCi/g	06/21/17 12:21	07/01/17 16:10	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Uranium-232	96.0		30 - 110					06/21/17 12:21	07/01/17 16:10	1

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M065A

Date Collected: 06/07/17 17:00

Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-5

Matrix: Solid

Percent Solids: 88.9

Method: 8260C DOD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	11	U Q	23	7.3	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Benzene	1.1	U	5.6	0.29	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Bromoform	1.1	U	5.6	0.41	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Bromodichloromethane	1.1	U	5.6	0.29	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Bromomethane	5.6	U Q	11	1.2	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
2-Butanone (MEK)	5.6	U	23	2.2	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Carbon disulfide	1.1	U Q	5.6	0.77	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Carbon tetrachloride	1.1	U Q	5.6	0.58	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Chlorobenzene	1.1	U	5.6	0.43	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Dibromochloromethane	1.1	U	5.6	0.46	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Chloroethane	1.1	U Q	11	0.58	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Chloroform	1.1	U Q	5.6	0.42	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Chloromethane	5.6	U Q	11	0.73	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Cyclohexane	1.1	U Q	11	0.41	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
1,2-Dibromo-3-Chloropropane	5.6	U	11	1.6	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
1,2-Dichlorobenzene	1.9	J	5.6	0.32	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
1,3-Dichlorobenzene	1.1	U	5.6	0.32	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
1,4-Dichlorobenzene	1.1	U	5.6	0.68	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
1,1-Dichloroethane	1.1	U Q	5.6	0.44	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
1,2-Dichloroethane	1.1	U	5.6	0.98	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
cis-1,2-Dichloroethene	1.1	U Q	5.6	0.67	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
trans-1,2-Dichloroethene	1.1	U Q	5.6	1.1	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
1,1-Dichloroethene	5.6	U Q	5.6	1.8	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
1,2-Dichloropropane	1.1	U	5.6	0.43	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
cis-1,3-Dichloropropene	1.1	U	5.6	0.67	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
trans-1,3-Dichloropropene	1.1	U	5.6	0.39	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Ethylbenzene	1.1	U	5.6	0.34	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6	U	5.6	1.9	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
2-Hexanone	5.6	U	23	2.0	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Isopropylbenzene	1.1	U	5.6	0.29	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Methyl acetate	5.6	U Q	28	1.6	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Methylcyclohexane	1.1	U	11	0.29	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Methylene Chloride	4.5	J Q	11	1.8	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
4-Methyl-2-pentanone (MIBK)	5.6	U	23	0.83	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Methyl tert-butyl ether	1.1	U Q	5.6	0.54	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Trichlorofluoromethane	1.1	U Q	5.6	0.56	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Trichloroethene	1.1	U	5.6	0.44	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
1,2,4-Trichlorobenzene	0.59	J	5.6	0.48	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
1,1,1-Trichloroethane	1.1	U	5.6	0.49	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Vinyl chloride	1.1	U Q	11	0.48	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Xylenes, Total	5.6	U	11	0.96	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
1,1,2,2-Tetrachloroethane	1.1	U	5.6	0.45	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
1,1,2-Trichloroethane	1.1	U	5.6	0.65	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Styrene	1.1	U	5.6	0.39	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Tetrachloroethene	1.1	U	5.6	0.36	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Toluene	1.1	U	5.6	0.79	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
Dichlorodifluoromethane	5.6	U	11	1.5	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1
1,2-Dibromoethane	1.1	U	5.6	0.79	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:07	1

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M065A

Date Collected: 06/07/17 17:00

Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-5

Matrix: Solid

Percent Solids: 88.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	124		71 - 136	06/20/17 20:18	06/21/17 02:07	1
4-Bromofluorobenzene (Surr)	99		79 - 119	06/20/17 20:18	06/21/17 02:07	1
Dibromofluoromethane (Surr)	121	Q	78 - 119	06/20/17 20:18	06/21/17 02:07	1
Toluene-d8 (Surr)	90		85 - 116	06/20/17 20:18	06/21/17 02:07	1

Method: 8015B GRO DOD - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	1.4	U	5.6	0.56	mg/Kg	✉	06/21/17 14:19	06/29/17 23:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	96		45 - 130				06/21/17 14:19	06/29/17 23:03	1

Method: 8015B DRO - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	110	U	560	56	mg/Kg	✉	06/15/17 11:51	07/13/17 18:41	20
Motor Oil Range Organics [C28-C40]	110	J D	560	56	mg/Kg	✉	06/15/17 11:51	07/13/17 18:41	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	0	D	45 - 130				06/15/17 11:51	07/13/17 18:41	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.0	U	1.3	0.52	mg/Kg	✉	07/05/17 10:33	07/11/17 08:57	5
Arsenic	2.1	J D	2.6	1.0	mg/Kg	✉	07/05/17 10:33	07/11/17 08:57	5
Barium	27	D	5.2	1.3	mg/Kg	✉	07/05/17 10:33	07/11/17 08:57	5
Beryllium	0.12	J D	0.26	0.10	mg/Kg	✉	07/05/17 10:33	07/11/17 08:57	5
Cadmium	0.067	J D	0.13	0.063	mg/Kg	✉	07/05/17 10:33	07/11/17 20:32	5
Chromium	28	D	2.6	1.2	mg/Kg	✉	07/05/17 10:33	07/11/17 08:57	5
Cobalt	4.3	D	0.52	0.20	mg/Kg	✉	07/05/17 10:33	07/11/17 08:57	5
Copper	6.0	D	2.6	1.0	mg/Kg	✉	07/05/17 10:33	07/11/17 08:57	5
Lead	7.0	D	0.78	0.33	mg/Kg	✉	07/05/17 10:33	07/11/17 08:57	5
Molybdenum	1.0	U	1.3	0.52	mg/Kg	✉	07/05/17 10:33	07/11/17 08:57	5
Nickel	28	D	1.3	0.52	mg/Kg	✉	07/05/17 10:33	07/11/17 08:57	5
Selenium	1.0	U	1.3	0.83	mg/Kg	✉	07/05/17 10:33	07/11/17 08:57	5
Silver	0.39	U	0.52	0.20	mg/Kg	✉	07/05/17 10:33	07/11/17 08:57	5
Thallium	1.0	U	1.3	0.52	mg/Kg	✉	07/05/17 10:33	07/11/17 08:57	5
Vanadium	18	D	2.6	1.0	mg/Kg	✉	07/05/17 10:33	07/11/17 08:57	5
Zinc	23	D	13	5.2	mg/Kg	✉	07/05/17 10:33	07/11/17 08:57	5

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.046		0.033	0.011	mg/Kg	✉	06/21/17 09:47	06/22/17 16:12	1

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)					
Radium-226	0.357		0.0374	0.0527	1.00	pCi/g	06/15/17 14:51	07/08/17 11:37	1
Cesium-137	0.00321	U	0.0206	0.0206	0.113	pCi/g	06/15/17 14:51	07/08/17 11:37	1
Cobalt-60	0.00749	U	0.0213	0.0214	0.0361	pCi/g	06/15/17 14:51	07/08/17 11:37	1

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M065A

Lab Sample ID: 160-22833-5

Date Collected: 06/07/17 17:00

Matrix: Solid

Date Received: 06/14/17 09:20

Percent Solids: 88.9

Method: 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Strontium-90	-0.0677	U	0.171	0.171	0.331	0.301	pCi/g	06/16/17 09:32	06/28/17 15:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Sr Carrier	84.4		40 - 110					06/16/17 09:32	06/28/17 15:24	1
Y Carrier	87.9		40 - 110					06/16/17 09:32	06/28/17 15:24	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.409		0.118	0.123	1.00	0.0727	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Thorium-230	0.315		0.103	0.106	1.00	0.0609	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Thorium-232	0.230		0.0875	0.0897	1.00	0.0546	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Thorium-229	92.2		30 - 110					06/21/17 12:21	07/01/17 16:09	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	0.268		0.0716	0.0751	0.742	0.0308	pCi/g	06/21/17 12:21	07/01/17 16:10	1
Uranium-235/236	0.0117	U	0.0165	0.0165	0.742	0.0175	pCi/g	06/21/17 12:21	07/01/17 16:10	1
Uranium-238	0.209		0.0638	0.0662	0.742	0.0345	pCi/g	06/21/17 12:21	07/01/17 16:10	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Uranium-232	101		30 - 110					06/21/17 12:21	07/01/17 16:10	1

Client Sample ID: M061A-R

Lab Sample ID: 160-22833-6

Date Collected: 06/07/17 17:00

Matrix: Solid

Date Received: 06/14/17 09:20

Percent Solids: 79.6

Method: 8260C DOD - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)					
Acetone	1600	U	12000	1100	ug/Kg	⊗	06/19/17 17:46	07/02/17 17:22	10
Benzene	620	U	3100	120	ug/Kg	⊗	06/19/17 17:46	07/02/17 17:22	10
Bromoform	620	U	3100	200	ug/Kg	⊗	06/19/17 17:46	07/02/17 17:22	10
Bromodichloromethane	620	U	3100	130	ug/Kg	⊗	06/19/17 17:46	07/02/17 17:22	10
Bromomethane	620	U Q	6200	300	ug/Kg	⊗	06/19/17 17:46	07/02/17 17:22	10
2-Butanone (MEK)	1600	U	6200	830	ug/Kg	⊗	06/19/17 17:46	07/02/17 17:22	10
Carbon disulfide	620	U	3100	150	ug/Kg	⊗	06/19/17 17:46	07/02/17 17:22	10
Carbon tetrachloride	620	U	3100	220	ug/Kg	⊗	06/19/17 17:46	07/02/17 17:22	10
Chlorobenzene	620	U	3100	130	ug/Kg	⊗	06/19/17 17:46	07/02/17 17:22	10
Dibromochloromethane	620	U	3100	130	ug/Kg	⊗	06/19/17 17:46	07/02/17 17:22	10
Chloroethane	620	U	6200	170	ug/Kg	⊗	06/19/17 17:46	07/02/17 17:22	10
Chloroform	620	U	3100	130	ug/Kg	⊗	06/19/17 17:46	07/02/17 17:22	10
Chloromethane	620	U Q	6200	310	ug/Kg	⊗	06/19/17 17:46	07/02/17 17:22	10
Cyclohexane	200	J D	6200	150	ug/Kg	⊗	06/19/17 17:46	07/02/17 17:22	10
1,2-Dibromo-3-Chloropropane	1600	U Q	6200	820	ug/Kg	⊗	06/19/17 17:46	07/02/17 17:22	10

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M061A-R
Date Collected: 06/07/17 17:00
Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-6
Matrix: Solid
Percent Solids: 79.6

Method: 8260C DOD - Volatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	6400	D Q	3100	170	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
1,3-Dichlorobenzene	620	U Q	3100	95	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
1,4-Dichlorobenzene	670	J D Q	3100	190	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
1,1-Dichloroethane	620	U	3100	130	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
1,2-Dichloroethane	620	U	3100	140	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
cis-1,2-Dichloroethylene	38000	D	3100	130	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
trans-1,2-Dichloroethylene	460	J D	6200	100	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
1,1-Dichloroethylene	620	U	3100	300	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
1,2-Dichloropropane	620	U	3100	200	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
cis-1,3-Dichloropropene	620	U	6200	80	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
trans-1,3-Dichloropropene	620	U	3100	120	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
Ethylbenzene	1500	J D	3100	100	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
1,1,2-Trichloro-1,2,2-trifluoroethane	620	U	3100	350	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
2-Hexanone	620	U	12000	160	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
Isopropylbenzene	2100	J D	3100	120	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
Methyl acetate	6200	U	16000	670	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
Methylcyclohexane	4200	J D	6200	160	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
Methylene Chloride	1600	U	3100	630	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
4-Methyl-2-pentanone (MIBK)	620	U	12000	250	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
Methyl tert-butyl ether	620	U	3100	120	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
Trichlorofluoromethane	620	U	3100	170	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
Trichloroethylene	4400	D	3100	220	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
1,2,4-Trichlorobenzene	980	J D Q	3100	180	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
1,1,1-Trichloroethane	620	U	3100	120	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
Vinyl chloride	4200	J D Q	6200	340	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
Xylenes, Total	12000		9400	360	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
1,1,2,2-Tetrachloroethane	620	U Q	3100	190	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
1,1,2-Trichloroethane	620	U	3100	370	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
Styrene	620	U	3100	180	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
Tetrachloroethylene	620	U	3100	250	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
Toluene	7600	D	3100	160	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
Dichlorodifluoromethane	620	U Q	6200	360	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
1,2-Dibromoethane	620	U	3100	210	ug/Kg	✉	06/19/17 17:46	07/02/17 17:22	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		71 - 136				06/19/17 17:46	07/02/17 17:22	10
4-Bromofluorobenzene (Surr)	326	Q	79 - 119				06/19/17 17:46	07/02/17 17:22	10
Dibromofluoromethane (Surr)	80		78 - 119				06/19/17 17:46	07/02/17 17:22	10
Toluene-d8 (Surr)	85		85 - 116				06/19/17 17:46	07/02/17 17:22	10

Method: 8015B GRO DOD - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	1900	D	130	13	mg/Kg	✉	06/21/17 14:19	07/02/17 08:11	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	0	Q	45 - 130				06/21/17 14:19	07/02/17 08:11	20

Method: 8015B DRO - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	4100	D	3700	370	mg/Kg	✉	06/15/17 11:51	07/13/17 19:08	20

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M061A-R
Date Collected: 06/07/17 17:00
Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-6
Matrix: Solid
Percent Solids: 79.6

Method: 8015B DRO - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil Range Organics [C28-C40]	4600	D	3700	370	mg/Kg	✉	06/15/17 11:51	07/13/17 19:08	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	0	D	45 - 130				06/15/17 11:51	07/13/17 19:08	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	23	D	2.6	1.1	mg/Kg	✉	07/05/17 10:33	07/11/17 09:04	10
Arsenic	10	D	5.3	2.1	mg/Kg	✉	07/05/17 10:33	07/11/17 09:04	10
Barium	650	D	11	2.6	mg/Kg	✉	07/05/17 10:33	07/11/17 09:04	10
Beryllium	0.42	U	0.53	0.21	mg/Kg	✉	07/05/17 10:33	07/11/17 09:04	10
Cadmium	130	D	0.13	0.063	mg/Kg	✉	07/05/17 10:33	07/11/17 20:37	5
Chromium	280	D	5.3	2.4	mg/Kg	✉	07/05/17 10:33	07/11/17 09:04	10
Cobalt	9.3	D	1.1	0.39	mg/Kg	✉	07/05/17 10:33	07/11/17 09:04	10
Copper	860	D	5.3	2.1	mg/Kg	✉	07/05/17 10:33	07/11/17 09:04	10
Lead	2200	D	1.6	0.66	mg/Kg	✉	07/05/17 10:33	07/11/17 09:04	10
Molybdenum	19	D	2.6	1.1	mg/Kg	✉	07/05/17 10:33	07/11/17 09:04	10
Nickel	93	D	2.6	1.1	mg/Kg	✉	07/05/17 10:33	07/11/17 09:04	10
Selenium	2.1	U	2.6	1.7	mg/Kg	✉	07/05/17 10:33	07/11/17 09:04	10
Silver	11	D	1.1	0.39	mg/Kg	✉	07/05/17 10:33	07/11/17 09:04	10
Thallium	2.1	U	2.6	1.1	mg/Kg	✉	07/05/17 10:33	07/11/17 09:04	10
Vanadium	54	D	5.3	2.1	mg/Kg	✉	07/05/17 10:33	07/11/17 09:04	10
Zinc	2900	D	26	11	mg/Kg	✉	07/05/17 10:33	07/11/17 09:04	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.31		0.038	0.013	mg/Kg	✉	06/21/17 09:47	06/22/17 16:14	1

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Radium-226	9.52		0.238	1.02	1.00	0.114	pCi/g	06/15/17 14:51	07/08/17 11:36	1
Cesium-137	0.00313	U	0.0561	0.0561	0.113	0.0941	pCi/g	06/15/17 14:51	07/08/17 11:36	1
Cobalt-60	0.0110	U	0.0183	0.0183	0.0361	0.0678	pCi/g	06/15/17 14:51	07/08/17 11:36	1

Method: 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
Strontium-90	0.0892	U	0.140	0.140	0.331	0.234	pCi/g	06/16/17 09:32	06/28/17 15:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Sr Carrier	82.3		40 - 110					06/16/17 09:32	06/28/17 15:25	1
Y Carrier	99.1		40 - 110					06/16/17 09:32	06/28/17 15:25	1

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M061A-R
Date Collected: 06/07/17 17:00
Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-6
Matrix: Solid
Percent Solids: 79.6

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.335		0.107	0.111	1.00	0.0837	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Thorium-230	0.388		0.111	0.116	1.00	0.0603	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Thorium-232	0.221		0.0846	0.0866	1.00	0.0593	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Thorium-229	107		30 - 110					06/21/17 12:21	07/01/17 16:09	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	0.316		0.0773	0.0817	0.742	0.0340	pCi/g	06/21/17 12:21	07/01/17 16:10	1
Uranium-235/236	0.00907	U	0.0169	0.0169	0.742	0.0317	pCi/g	06/21/17 12:21	07/01/17 16:10	1
Uranium-238	0.243		0.0669	0.0699	0.742	0.0138	pCi/g	06/21/17 12:21	07/01/17 16:10	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Uranium-232	98.5		30 - 110					06/21/17 12:21	07/01/17 16:10	1

Client Sample ID: M066A

Date Collected: 06/07/17 17:00
Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-7
Matrix: Solid
Percent Solids: 87.2

Method: 8260C DOD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	17	J	23	7.4	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Benzene	1.1	U	5.7	0.29	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Bromoform	1.1	U	5.7	0.42	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Bromodichloromethane	1.1	U	5.7	0.29	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Bromomethane	5.7	U	11	1.3	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
2-Butanone (MEK)	5.7	U	23	2.2	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Carbon disulfide	1.1	U	5.7	0.78	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Carbon tetrachloride	1.1	U	5.7	0.58	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Chlorobenzene	1.1	U	5.7	0.44	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Dibromochloromethane	1.1	U	5.7	0.46	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Chloroethane	1.1	U	11	0.59	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Chloroform	1.1	U	5.7	0.43	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Chloromethane	5.7	U	11	0.74	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Cyclohexane	1.1	U	11	0.41	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
1,2-Dibromo-3-Chloropropane	5.7	U	11	1.7	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
1,2-Dichlorobenzene	9.6		5.7	0.32	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
1,3-Dichlorobenzene	1.1	U	5.7	0.32	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
1,4-Dichlorobenzene	1.3	J	5.7	0.68	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
1,1-Dichloroethane	1.1	U	5.7	0.45	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
1,2-Dichloroethane	1.1	U	5.7	0.99	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
cis-1,2-Dichloroethene	4.5	J	5.7	0.68	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
trans-1,2-Dichloroethene	1.1	U	5.7	1.1	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
1,1-Dichloroethene	5.7	U	5.7	1.8	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
1,2-Dichloropropane	1.1	U	5.7	0.44	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M066A

Date Collected: 06/07/17 17:00

Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-7

Matrix: Solid

Percent Solids: 87.2

Method: 8260C DOD - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	1.1	U	5.7	0.68	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
trans-1,3-Dichloropropene	1.1	U	5.7	0.40	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Ethylbenzene	1.1	U	5.7	0.34	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	5.7	U	5.7	1.9	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
2-Hexanone	5.7	U	23	2.0	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Isopropylbenzene	0.56	J	5.7	0.29	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Methyl acetate	5.7	U	28	1.6	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Methylcyclohexane	0.60	J	11	0.30	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Methylene Chloride	16		11	1.8	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
4-Methyl-2-pentanone (MIBK)	5.7	U	23	0.83	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Methyl tert-butyl ether	1.1	U	5.7	0.54	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Trichlorofluoromethane	1.1	U	5.7	0.57	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Trichloroethene	1.1	U	5.7	0.44	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
1,2,4-Trichlorobenzene	1.1	U	5.7	0.48	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
1,1,1-Trichloroethane	1.1	U	5.7	0.49	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Vinyl chloride	1.1	U	11	0.49	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Xylenes, Total	4.7	J	11	0.97	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
1,1,2,2-Tetrachloroethane	1.1	U	5.7	0.46	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
1,1,2-Trichloroethane	1.1	U	5.7	0.65	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Styrene	1.1	U	5.7	0.40	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Tetrachloroethene	1.1	U	5.7	0.37	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Toluene	3.2	J	5.7	0.80	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Dichlorodifluoromethane	5.7	U	11	1.5	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
1,2-Dibromoethane	1.1	U	5.7	0.80	ug/Kg	⊗	06/20/17 20:18	06/21/17 02:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		71 - 136				06/20/17 20:18	06/21/17 02:32	1
4-Bromofluorobenzene (Surr)	101		79 - 119				06/20/17 20:18	06/21/17 02:32	1
Dibromofluoromethane (Surr)	113		78 - 119				06/20/17 20:18	06/21/17 02:32	1
Toluene-d8 (Surr)	89		85 - 116				06/20/17 20:18	06/21/17 02:32	1

Method: 8015B GRO DOD - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	8.4		5.7	0.57	mg/Kg	⊗	06/21/17 14:19	06/30/17 00:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	115		45 - 130				06/21/17 14:19	06/30/17 00:32	1

Method: 8015B DRO - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	5.7	U	29	2.9	mg/Kg	⊗	06/15/17 11:51	07/13/17 16:28	1
Motor Oil Range Organics [C28-C40]	10	J	29	2.9	mg/Kg	⊗	06/15/17 11:51	07/13/17 16:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl (Surr)	65		45 - 130				06/15/17 11:51	07/13/17 16:28	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.0	J D	1.3	0.50	mg/Kg	⊗	07/05/17 10:33	07/11/17 09:10	5

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M066A

Date Collected: 06/07/17 17:00

Date Received: 06/14/17 09:20

Lab Sample ID: 160-22833-7

Matrix: Solid

Percent Solids: 87.2

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	D	2.5	1.0	mg/Kg	✉	07/05/17 10:33	07/11/17 09:10	5
Barium	36	D	5.0	1.3	mg/Kg	✉	07/05/17 10:33	07/11/17 09:10	5
Beryllium	0.14	J D	0.25	0.10	mg/Kg	✉	07/05/17 10:33	07/11/17 09:10	5
Cadmium	2.0	D	0.13	0.060	mg/Kg	✉	07/05/17 10:33	07/11/17 20:41	5
Chromium	30	D	2.5	1.1	mg/Kg	✉	07/05/17 10:33	07/11/17 09:10	5
Cobalt	6.0	D	0.50	0.19	mg/Kg	✉	07/05/17 10:33	07/11/17 09:10	5
Copper	35	D	2.5	1.0	mg/Kg	✉	07/05/17 10:33	07/11/17 09:10	5
Lead	38	D	0.75	0.31	mg/Kg	✉	07/05/17 10:33	07/11/17 09:10	5
Molybdenum	1.2	J D	1.3	0.50	mg/Kg	✉	07/05/17 10:33	07/11/17 09:10	5
Nickel	31	D	1.3	0.50	mg/Kg	✉	07/05/17 10:33	07/11/17 09:10	5
Selenium	1.0	U	1.3	0.80	mg/Kg	✉	07/05/17 10:33	07/11/17 09:10	5
Silver	0.24	J D	0.50	0.19	mg/Kg	✉	07/05/17 10:33	07/11/17 09:10	5
Thallium	1.0	U	1.3	0.50	mg/Kg	✉	07/05/17 10:33	07/11/17 09:10	5
Vanadium	21	D	2.5	1.0	mg/Kg	✉	07/05/17 10:33	07/11/17 09:10	5
Zinc	810	D	13	5.0	mg/Kg	✉	07/05/17 10:33	07/11/17 09:10	5

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018	J	0.035	0.012	mg/Kg	✉	06/21/17 09:47	06/22/17 16:21	1

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)					
Radium-226	0.526		0.0651	0.0850	1.00	pCi/g	06/15/17 14:51	07/09/17 19:45	1
Cesium-137	-0.0158	U	0.0272	0.0273	0.113	pCi/g	06/15/17 14:51	07/09/17 19:45	1
Cobalt-60	0.00860	U	0.0201	0.0201	0.0361	pCi/g	06/15/17 14:51	07/09/17 19:45	1

Method: 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count	Total	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)					
Strontium-90	0.121	U	0.132	0.132	0.331	pCi/g	06/16/17 09:32	06/28/17 15:25	1
Carrier	%Yield	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Sr Carrier	83.7		40 - 110				06/16/17 09:32	06/28/17 15:25	1
Y Carrier	99.4		40 - 110				06/16/17 09:32	06/28/17 15:25	1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)					
Thorium-228	0.417		0.120	0.125	1.00	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Thorium-230	0.437		0.119	0.125	1.00	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Thorium-232	0.387		0.112	0.117	1.00	pCi/g	06/21/17 12:21	07/01/17 16:09	1
Tracer	%Yield	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Thorium-229	88.5		30 - 110				06/21/17 12:21	07/01/17 16:09	1

TestAmerica St. Louis

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Client Sample ID: M066A

Lab Sample ID: 160-22833-7

Date Collected: 06/07/17 17:00

Matrix: Solid

Date Received: 06/14/17 09:20

Percent Solids: 87.2

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Uranium-233/234	0.392		0.0866	0.0927	0.742	0.0263	pCi/g	06/21/17 12:21	07/01/17 16:10	1
Uranium-235/236	0.00296	U	0.0238	0.0238	0.742	0.0543	pCi/g	06/21/17 12:21	07/01/17 16:10	1
Uranium-238	0.388		0.0902	0.0959	0.742	0.0606	pCi/g	06/21/17 12:21	07/01/17 16:10	1
<i>Tracer</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>					<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Uranium-232	101		30 - 110					06/21/17 12:21	07/01/17 16:10	1

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 8260C DOD - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 160-314167/1-A

Matrix: Solid

Analysis Batch: 316046

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 314167

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	130	U	1000	85	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Benzene	50	U	250	9.9	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Bromoform	50	U	250	16	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Bromodichloromethane	50	U	250	11	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Bromomethane	50	U	500	24	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
2-Butanone (MEK)	130	U	500	66	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Carbon disulfide	50	U	250	12	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Carbon tetrachloride	50	U	250	17	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Chlorobenzene	50	U	250	10	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Dibromochloromethane	50	U	250	10	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Chloroethane	50	U	500	13	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Chloroform	50	U	250	11	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Chloromethane	50	U	500	25	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Cyclohexane	50	U	500	12	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
1,2-Dibromo-3-Chloropropane	130	U	500	65	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
1,2-Dichlorobenzene	50	U	250	13	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
1,3-Dichlorobenzene	50	U	250	7.6	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
1,4-Dichlorobenzene	50	U	250	15	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
1,1-Dichloroethane	50	U	250	10	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
1,2-Dichloroethane	50	U	250	11	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
cis-1,2-Dichloroethene	50	U	250	10	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
trans-1,2-Dichloroethene	50	U	500	8.1	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
1,1-Dichloroethene	50	U	250	24	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
1,2-Dichloropropane	50	U	250	16	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
cis-1,3-Dichloropropene	50	U	500	6.4	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
trans-1,3-Dichloropropene	50	U	250	9.7	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Ethylbenzene	50	U	250	8.3	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
1,1,2-Trichloro-1,2,2-trifluoroethane	50	U	250	28	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
2-Hexanone	50	U	1000	13	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Isopropylbenzene	50	U	250	9.7	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Methyl acetate	500	U	1300	54	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Methylcyclohexane	50	U	500	13	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Methylene Chloride	130	U	250	51	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
4-Methyl-2-pentanone (MIBK)	50	U	1000	20	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Methyl tert-butyl ether	50	U	250	9.9	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Trichlorofluoromethane	50	U	250	14	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Trichloroethene	50	U	250	18	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
1,2,4-Trichlorobenzene	50	U	250	15	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
1,1,1-Trichloroethane	50	U	250	10	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Vinyl chloride	50	U	500	28	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Xylenes, Total	50	U	750	29	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
1,1,2,2-Tetrachloroethane	50	U	250	15	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
1,1,2-Trichloroethane	50	U	250	30	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Styrene	50	U	250	14	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Tetrachloroethene	50	U	250	20	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Toluene	50	U	250	13	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
Dichlorodifluoromethane	50	U	500	29	ug/Kg	06/19/17 17:46	07/02/17 19:27		1
1,2-Dibromoethane	50	U	250	17	ug/Kg	06/19/17 17:46	07/02/17 19:27		1

TestAmerica St. Louis

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)			104		71 - 136	06/19/17 17:46	07/02/17 19:27	1
4-Bromofluorobenzene (Surr)			94		79 - 119	06/19/17 17:46	07/02/17 19:27	1
Dibromofluoromethane (Surr)			98		78 - 119	06/19/17 17:46	07/02/17 19:27	1
Toluene-d8 (Surr)			95		85 - 116	06/19/17 17:46	07/02/17 19:27	1

Lab Sample ID: LCS 160-314167/2-A

Matrix: Solid

Analysis Batch: 316046

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 314167

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Acetone	2500	2450		ug/Kg		98	36 - 164	
Benzene	2500	2180		ug/Kg		87	77 - 121	
Bromoform	2500	2370		ug/Kg		95	67 - 132	
Bromodichloromethane	2500	2490		ug/Kg		100	75 - 127	
Bromomethane	2500	2090		ug/Kg		84	53 - 143	
2-Butanone (MEK)	2500	2580		ug/Kg		103	51 - 148	
Carbon disulfide	2500	1920		ug/Kg		77	63 - 132	
Carbon tetrachloride	2500	2370		ug/Kg		95	70 - 135	
Chlorobenzene	2500	2380		ug/Kg		95	79 - 120	
Dibromochloromethane	2500	2580		ug/Kg		103	74 - 126	
Chloroethane	2500	1920		ug/Kg		77	59 - 139	
Chloroform	2500	2310		ug/Kg		93	78 - 123	
Chloromethane	2500	1840		ug/Kg		74	50 - 136	
Cyclohexane	2500	2210		ug/Kg		88	67 - 131	
1,2-Dibromo-3-Chloropropane	2500	2430		ug/Kg		97	61 - 132	
1,2-Dichlorobenzene	2500	2460		ug/Kg		99	78 - 121	
1,3-Dichlorobenzene	2500	2450		ug/Kg		98	77 - 121	
1,4-Dichlorobenzene	2500	2420		ug/Kg		97	75 - 120	
1,1-Dichloroethane	2500	2240		ug/Kg		90	76 - 125	
1,2-Dichloroethane	2500	2410		ug/Kg		96	73 - 128	
cis-1,2-Dichloroethene	2500	2380		ug/Kg		95	77 - 123	
trans-1,2-Dichloroethene	2500	2210		ug/Kg		88	74 - 125	
1,1-Dichloroethene	2500	2050		ug/Kg		82	70 - 131	
1,2-Dichloropropane	2500	2460		ug/Kg		99	76 - 123	
cis-1,3-Dichloropropene	2500	2660		ug/Kg		106	74 - 126	
trans-1,3-Dichloropropene	2500	2660		ug/Kg		106	71 - 130	
Ethylbenzene	2500	2450		ug/Kg		98	76 - 122	
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	2010		ug/Kg		80	66 - 136	
2-Hexanone	2500	2410		ug/Kg		96	53 - 145	
Isopropylbenzene	2500	2540		ug/Kg		102	68 - 134	
Methyl acetate	12500	12800		ug/Kg		102	53 - 144	
Methylcyclohexane	2500	2360		ug/Kg		94	66 - 133	
Methylene Chloride	2500	2150		ug/Kg		86	70 - 128	
4-Methyl-2-pentanone (MIBK)	2500	2830		ug/Kg		113	65 - 135	
Methyl tert-butyl ether	2500	2450		ug/Kg		98	73 - 125	
Trichlorofluoromethane	2500	1950		ug/Kg		78	62 - 140	
Trichloroethene	2500	2220		ug/Kg		89	77 - 123	
1,2,4-Trichlorobenzene	2500	2630		ug/Kg		105	67 - 129	
1,1,1-Trichloroethane	2500	2320		ug/Kg		93	73 - 130	
Vinyl chloride	2500	1850		ug/Kg		74	56 - 135	
Xylenes, Total	5000	5130		ug/Kg		103	78 - 124	
o-Xylene	2500	2600		ug/Kg		104	77 - 123	
m-Xylene & p-Xylene	2500	2530		ug/Kg		101	77 - 124	

TestAmerica St. Louis

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 8260C DOD - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 160-314167/2-A

Matrix: Solid

Analysis Batch: 316046

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 314167

%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,1,2,2-Tetrachloroethane	2500	2340		ug/Kg		94	70 - 124
1,1,2-Trichloroethane	2500	2370		ug/Kg		95	78 - 121
Styrene	2500	2570		ug/Kg		103	76 - 124
Tetrachloroethylene	2500	2430		ug/Kg		97	73 - 128
Toluene	2500	2390		ug/Kg		96	77 - 121
Dichlorodifluoromethane	2500	1430		ug/Kg		57	29 - 149
1,2-Dibromoethane	2500	2350		ug/Kg		94	78 - 121

LCS

LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		71 - 136
4-Bromofluorobenzene (Surr)	98		79 - 119
Dibromofluoromethane (Surr)	92		78 - 119
Toluene-d8 (Surr)	96		85 - 116

Lab Sample ID: LCSD 160-314167/3-A

Matrix: Solid

Analysis Batch: 316046

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 314167

%Rec.

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acetone	2500	2360		ug/Kg		94	36 - 164	4	20
Benzene	2500	2180		ug/Kg		87	77 - 121	0	20
Bromoform	2500	2240		ug/Kg		90	67 - 132	5	20
Bromodichloromethane	2500	2400		ug/Kg		96	75 - 127	4	20
Bromomethane	2500	2620	Q	ug/Kg		105	53 - 143	22	20
2-Butanone (MEK)	2500	2520		ug/Kg		101	51 - 148	2	20
Carbon disulfide	2500	2220		ug/Kg		89	63 - 132	15	20
Carbon tetrachloride	2500	2370		ug/Kg		95	70 - 135	0	20
Chlorobenzene	2500	2290		ug/Kg		92	79 - 120	4	20
Dibromochloromethane	2500	2440		ug/Kg		98	74 - 126	5	20
Chloroethane	2500	2270		ug/Kg		91	59 - 139	17	20
Chloroform	2500	2260		ug/Kg		90	78 - 123	2	20
Chloromethane	2500	2420	Q	ug/Kg		97	50 - 136	27	20
Cyclohexane	2500	2350		ug/Kg		94	67 - 131	6	20
1,2-Dibromo-3-Chloropropane	2500	2230		ug/Kg		89	61 - 132	9	20
1,2-Dichlorobenzene	2500	2360		ug/Kg		95	78 - 121	4	20
1,3-Dichlorobenzene	2500	2320		ug/Kg		93	77 - 121	6	20
1,4-Dichlorobenzene	2500	2300		ug/Kg		92	75 - 120	5	20
1,1-Dichloroethane	2500	2250		ug/Kg		90	76 - 125	0	20
1,2-Dichloroethane	2500	2350		ug/Kg		94	73 - 128	3	20
cis-1,2-Dichloroethene	2500	2350		ug/Kg		94	77 - 123	1	20
trans-1,2-Dichloroethene	2500	2310		ug/Kg		93	74 - 125	5	20
1,1-Dichloroethene	2500	2250		ug/Kg		90	70 - 131	9	20
1,2-Dichloropropane	2500	2380		ug/Kg		95	76 - 123	4	20
cis-1,3-Dichloropropene	2500	2580		ug/Kg		103	74 - 126	3	20
trans-1,3-Dichloropropene	2500	2550		ug/Kg		102	71 - 130	4	20
Ethylbenzene	2500	2310		ug/Kg		93	76 - 122	5	20
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	2260		ug/Kg		90	66 - 136	11	20

TestAmerica St. Louis

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 8260C DOD - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 160-314167/3-A

Matrix: Solid

Analysis Batch: 316046

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 314167

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier						
2-Hexanone	2500	2310		ug/Kg	92	53 - 145	4	20	
Isopropylbenzene	2500	2470		ug/Kg	99	68 - 134	3	20	
Methyl acetate	12500	12500		ug/Kg	100	53 - 144	2	20	
Methylcyclohexane	2500	2420		ug/Kg	97	66 - 133	3	20	
Methylene Chloride	2500	2210		ug/Kg	88	70 - 128	3	20	
4-Methyl-2-pentanone (MIBK)	2500	2530		ug/Kg	101	65 - 135	11	20	
Methyl tert-butyl ether	2500	2410		ug/Kg	97	73 - 125	1	20	
Trichlorofluoromethane	2500	2310		ug/Kg	93	62 - 140	17	20	
Trichloroethene	2500	2150		ug/Kg	86	77 - 123	3	20	
1,2,4-Trichlorobenzene	2500	2510		ug/Kg	100	67 - 129	5	20	
1,1,1-Trichloroethane	2500	2330		ug/Kg	93	73 - 130	0	20	
Vinyl chloride	2500	2420	Q	ug/Kg	97	56 - 135	27	20	
Xylenes, Total	5000	4920		ug/Kg	98	78 - 124	4	20	
o-Xylene	2500	2500		ug/Kg	100	77 - 123	4	20	
m-Xylene & p-Xylene	2500	2420		ug/Kg	97	77 - 124	4	20	
1,1,2,2-Tetrachloroethane	2500	2290		ug/Kg	92	70 - 124	2	20	
1,1,2-Trichloroethane	2500	2240		ug/Kg	90	78 - 121	5	20	
Styrene	2500	2450		ug/Kg	98	76 - 124	5	20	
Tetrachloroethene	2500	2320		ug/Kg	93	73 - 128	5	20	
Toluene	2500	2330		ug/Kg	93	77 - 121	3	20	
Dichlorodifluoromethane	2500	2340	Q	ug/Kg	94	29 - 149	48	20	
1,2-Dibromoethane	2500	2220		ug/Kg	89	78 - 121	6	20	

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	98		71 - 136
4-Bromofluorobenzene (Surr)	101		79 - 119
Dibromofluoromethane (Surr)	94		78 - 119
Toluene-d8 (Surr)	98		85 - 116

Lab Sample ID: MB 160-314367/1-A

Matrix: Solid

Analysis Batch: 314357

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 314367

Analyte	MB	MB	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	10	U	20	6.5	ug/Kg	06/20/17 20:18	06/21/17 00:52		1
Benzene	1.0	U	5.0	0.25	ug/Kg	06/20/17 20:18	06/21/17 00:52		1
Bromoform	1.0	U	5.0	0.37	ug/Kg	06/20/17 20:18	06/21/17 00:52		1
Bromodichloromethane	1.0	U	5.0	0.25	ug/Kg	06/20/17 20:18	06/21/17 00:52		1
Bromomethane	5.0	U	10	1.1	ug/Kg	06/20/17 20:18	06/21/17 00:52		1
2-Butanone (MEK)	5.0	U	20	1.9	ug/Kg	06/20/17 20:18	06/21/17 00:52		1
Carbon disulfide	1.0	U	5.0	0.69	ug/Kg	06/20/17 20:18	06/21/17 00:52		1
Carbon tetrachloride	1.0	U	5.0	0.51	ug/Kg	06/20/17 20:18	06/21/17 00:52		1
Chlorobenzene	1.0	U	5.0	0.38	ug/Kg	06/20/17 20:18	06/21/17 00:52		1
Dibromochloromethane	1.0	U	5.0	0.41	ug/Kg	06/20/17 20:18	06/21/17 00:52		1
Chloroethane	1.0	U	10	0.52	ug/Kg	06/20/17 20:18	06/21/17 00:52		1
Chloroform	1.0	U	5.0	0.38	ug/Kg	06/20/17 20:18	06/21/17 00:52		1
Chloromethane	5.0	U	10	0.65	ug/Kg	06/20/17 20:18	06/21/17 00:52		1
Cyclohexane	1.0	U	10	0.36	ug/Kg	06/20/17 20:18	06/21/17 00:52		1

TestAmerica St. Louis

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 8260C DOD - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 160-314367/1-A

Matrix: Solid

Analysis Batch: 314357

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 314367

Analyte	MB		LOQ	DL	Unit	D	Prepared		Analyzed	Dil Fac
	Result	Qualifier					D	Prepared	Analyzed	
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.5	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
1,2-Dichlorobenzene	1.0	U	5.0	0.28	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
1,3-Dichlorobenzene	1.0	U	5.0	0.28	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
1,4-Dichlorobenzene	1.0	U	5.0	0.60	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
1,1-Dichloroethane	1.0	U	5.0	0.39	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
1,2-Dichloroethane	1.0	U	5.0	0.87	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
cis-1,2-Dichloroethene	1.0	U	5.0	0.60	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
trans-1,2-Dichloroethene	1.0	U	5.0	0.94	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
1,1-Dichloroethene	5.0	U	5.0	1.6	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
1,2-Dichloropropane	1.0	U	5.0	0.38	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
cis-1,3-Dichloropropene	1.0	U	5.0	0.60	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
trans-1,3-Dichloropropene	1.0	U	5.0	0.35	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
Ethylbenzene	1.0	U	5.0	0.30	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	1.7	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
2-Hexanone	5.0	U	20	1.8	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
Isopropylbenzene	1.0	U	5.0	0.26	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
Methyl acetate	5.0	U	25	1.4	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
Methylcyclohexane	1.0	U	10	0.26	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
Methylene Chloride	5.0	U	10	1.6	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
4-Methyl-2-pentanone (MIBK)	5.0	U	20	0.73	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
Methyl tert-butyl ether	1.0	U	5.0	0.48	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
Trichlorofluoromethane	1.0	U	5.0	0.50	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
Trichloroethene	1.0	U	5.0	0.39	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
1,2,4-Trichlorobenzene	1.0	U	5.0	0.43	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
1,1,1-Trichloroethane	1.0	U	5.0	0.43	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
Vinyl chloride	1.0	U	10	0.43	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
Xylenes, Total	5.0	U	10	0.85	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
1,1,2,2-Tetrachloroethane	1.0	U	5.0	0.40	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
1,1,2-Trichloroethane	1.0	U	5.0	0.57	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
Styrene	1.0	U	5.0	0.35	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
Tetrachloroethene	1.0	U	5.0	0.32	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
Toluene	1.0	U	5.0	0.70	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
Dichlorodifluoromethane	5.0	U	10	1.3	ug/Kg	06/20/17 20:18	06/21/17 00:52			1
1,2-Dibromoethane	1.0	U	5.0	0.70	ug/Kg	06/20/17 20:18	06/21/17 00:52			1

MB **MB**

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	94		71 - 136			1
4-Bromofluorobenzene (Surr)	94		79 - 119			1
Dibromofluoromethane (Surr)	97		78 - 119			1
Toluene-d8 (Surr)	96		85 - 116			1

Lab Sample ID: LCS 160-314367/2-A

Matrix: Solid

Analysis Batch: 314357

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 314367

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Acetone	50.0	42.4		ug/Kg	85	36 - 164	
Benzene	50.0	49.8		ug/Kg	100	77 - 121	

TestAmerica St. Louis

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 8260C DOD - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 160-314367/2-A

Matrix: Solid

Analysis Batch: 314357

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 314367

%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Bromoform	50.0	39.6		ug/Kg	79	67 - 132	
Bromodichloromethane	50.0	50.4		ug/Kg	101	75 - 127	
Bromomethane	50.0	44.5		ug/Kg	89	53 - 143	
2-Butanone (MEK)	50.0	43.3		ug/Kg	87	51 - 148	
Carbon disulfide	50.0	51.2		ug/Kg	102	63 - 132	
Carbon tetrachloride	50.0	46.7		ug/Kg	93	70 - 135	
Chlorobenzene	50.0	48.5		ug/Kg	97	79 - 120	
Dibromochloromethane	50.0	47.7		ug/Kg	95	74 - 126	
Chloroethane	50.0	43.7		ug/Kg	87	59 - 139	
Chloroform	50.0	49.1		ug/Kg	98	78 - 123	
Chloromethane	50.0	46.0		ug/Kg	92	50 - 136	
Cyclohexane	50.0	48.4		ug/Kg	97	67 - 131	
1,2-Dibromo-3-Chloropropane	50.0	45.0		ug/Kg	90	61 - 132	
1,2-Dichlorobenzene	50.0	50.3		ug/Kg	101	78 - 121	
1,3-Dichlorobenzene	50.0	50.2		ug/Kg	100	77 - 121	
1,4-Dichlorobenzene	50.0	50.1		ug/Kg	100	75 - 120	
1,1-Dichloroethane	50.0	50.1		ug/Kg	100	76 - 125	
1,2-Dichloroethane	50.0	46.0		ug/Kg	92	73 - 128	
cis-1,2-Dichloroethene	50.0	50.4		ug/Kg	101	77 - 123	
trans-1,2-Dichloroethene	50.0	49.7		ug/Kg	99	74 - 125	
1,1-Dichloroethene	50.0	49.5		ug/Kg	99	70 - 131	
1,2-Dichloropropane	50.0	50.4		ug/Kg	101	76 - 123	
cis-1,3-Dichloropropene	50.0	49.4		ug/Kg	99	74 - 126	
trans-1,3-Dichloropropene	50.0	46.7		ug/Kg	93	71 - 130	
Ethylbenzene	50.0	49.5		ug/Kg	99	76 - 122	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	47.1		ug/Kg	94	66 - 136	
2-Hexanone	50.0	39.6		ug/Kg	79	53 - 145	
Isopropylbenzene	50.0	53.0		ug/Kg	106	68 - 134	
Methyl acetate	250	235		ug/Kg	94	53 - 144	
Methylcyclohexane	50.0	47.6		ug/Kg	95	66 - 133	
Methylene Chloride	50.0	51.9		ug/Kg	104	70 - 128	
4-Methyl-2-pentanone (MIBK)	50.0	44.3		ug/Kg	89	65 - 135	
Methyl tert-butyl ether	50.0	49.5		ug/Kg	99	73 - 125	
Trichlorofluoromethane	50.0	47.5		ug/Kg	95	62 - 140	
Trichloroethene	50.0	49.7		ug/Kg	99	77 - 123	
1,2,4-Trichlorobenzene	50.0	49.1		ug/Kg	98	67 - 129	
1,1,1-Trichloroethane	50.0	47.8		ug/Kg	96	73 - 130	
Vinyl chloride	50.0	50.9		ug/Kg	102	56 - 135	
Xylenes, Total	100	101		ug/Kg	101	78 - 124	
o-Xylene	50.0	51.3		ug/Kg	103	77 - 123	
m-Xylene & p-Xylene	50.0	49.4		ug/Kg	99	77 - 124	
1,1,2,2-Tetrachloroethane	50.0	47.4		ug/Kg	95	70 - 124	
1,1,2-Trichloroethane	50.0	47.7		ug/Kg	95	78 - 121	
Styrene	50.0	50.5		ug/Kg	101	76 - 124	
Tetrachloroethene	50.0	46.0		ug/Kg	92	73 - 128	
Toluene	50.0	49.7		ug/Kg	99	77 - 121	
Dichlorodifluoromethane	50.0	48.7		ug/Kg	97	29 - 149	

TestAmerica St. Louis

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 8260C DOD - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 160-314367/2-A

Matrix: Solid

Analysis Batch: 314357

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 314367

%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,2-Dibromoethane	50.0	45.8		ug/Kg		92	78 - 121
Surrogate							
LCS %Recovery							
1,2-Dichloroethane-d4 (Surr)	94			71 - 136			
4-Bromofluorobenzene (Surr)	100			79 - 119			
Dibromofluoromethane (Surr)	103			78 - 119			
Toluene-d8 (Surr)	100			85 - 116			

Lab Sample ID: LCSD 160-314367/3-A

Matrix: Solid

Analysis Batch: 314357

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 314367

%Rec.

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acetone	50.0	42.4		ug/Kg		85	36 - 164	0	20
Benzene	50.0	47.8		ug/Kg		96	77 - 121	4	20
Bromoform	50.0	39.5		ug/Kg		79	67 - 132	0	20
Bromodichloromethane	50.0	48.3		ug/Kg		97	75 - 127	4	20
Bromomethane	50.0	41.4		ug/Kg		83	53 - 143	7	20
2-Butanone (MEK)	50.0	41.8		ug/Kg		84	51 - 148	4	20
Carbon disulfide	50.0	48.4		ug/Kg		97	63 - 132	5	20
Carbon tetrachloride	50.0	44.7		ug/Kg		89	70 - 135	4	20
Chlorobenzene	50.0	48.3		ug/Kg		97	79 - 120	0	20
Dibromochloromethane	50.0	47.4		ug/Kg		95	74 - 126	1	20
Chloroethane	50.0	39.6		ug/Kg		79	59 - 139	10	20
Chloroform	50.0	47.0		ug/Kg		94	78 - 123	4	20
Chloromethane	50.0	44.1		ug/Kg		88	50 - 136	4	20
Cyclohexane	50.0	45.6		ug/Kg		91	67 - 131	6	20
1,2-Dibromo-3-Chloropropane	50.0	44.2		ug/Kg		88	61 - 132	2	20
1,2-Dichlorobenzene	50.0	49.1		ug/Kg		98	78 - 121	2	20
1,3-Dichlorobenzene	50.0	48.7		ug/Kg		97	77 - 121	3	20
1,4-Dichlorobenzene	50.0	48.6		ug/Kg		97	75 - 120	3	20
1,1-Dichloroethane	50.0	47.3		ug/Kg		95	76 - 125	6	20
1,2-Dichloroethane	50.0	45.6		ug/Kg		91	73 - 128	1	20
cis-1,2-Dichloroethene	50.0	48.0		ug/Kg		96	77 - 123	5	20
trans-1,2-Dichloroethene	50.0	47.4		ug/Kg		95	74 - 125	5	20
1,1-Dichloroethene	50.0	46.9		ug/Kg		94	70 - 131	6	20
1,2-Dichloropropane	50.0	48.6		ug/Kg		97	76 - 123	4	20
cis-1,3-Dichloropropene	50.0	47.9		ug/Kg		96	74 - 126	3	20
trans-1,3-Dichloropropene	50.0	46.5		ug/Kg		93	71 - 130	0	20
Ethylbenzene	50.0	48.2		ug/Kg		96	76 - 122	3	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	44.8		ug/Kg		90	66 - 136	5	20
2-Hexanone	50.0	41.7		ug/Kg		83	53 - 145	5	20
Isopropylbenzene	50.0	50.6		ug/Kg		101	68 - 134	5	20
Methyl acetate	250	229		ug/Kg		91	53 - 144	3	20
Methylcyclohexane	50.0	44.8		ug/Kg		90	66 - 133	6	20
Methylene Chloride	50.0	50.1		ug/Kg		100	70 - 128	4	20
4-Methyl-2-pentanone (MIBK)	50.0	44.8		ug/Kg		90	65 - 135	1	20

TestAmerica St. Louis

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 8260C DOD - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 160-314367/3-A

Matrix: Solid

Analysis Batch: 314357

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 314367

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier						
Methyl tert-butyl ether	50.0	48.7		ug/Kg		97	73 - 125	2	20
Trichlorofluoromethane	50.0	45.3		ug/Kg		91	62 - 140	5	20
Trichloroethene	50.0	47.7		ug/Kg		95	77 - 123	4	20
1,2,4-Trichlorobenzene	50.0	48.2		ug/Kg		96	67 - 129	2	20
1,1,1-Trichloroethane	50.0	45.7		ug/Kg		91	73 - 130	4	20
Vinyl chloride	50.0	47.6		ug/Kg		95	56 - 135	7	20
Xylenes, Total	100	99.2		ug/Kg		99	78 - 124	2	20
o-Xylene	50.0	50.3		ug/Kg		101	77 - 123	2	20
m-Xylene & p-Xylene	50.0	48.9		ug/Kg		98	77 - 124	1	20
1,1,2,2-Tetrachloroethane	50.0	46.7		ug/Kg		93	70 - 124	2	20
1,1,2-Trichloroethane	50.0	48.0		ug/Kg		96	78 - 121	1	20
Styrene	50.0	49.9		ug/Kg		100	76 - 124	1	20
Tetrachloroethene	50.0	44.6		ug/Kg		89	73 - 128	3	20
Toluene	50.0	48.8		ug/Kg		98	77 - 121	2	20
Dichlorodifluoromethane	50.0	46.1		ug/Kg		92	29 - 149	5	20
1,2-Dibromoethane	50.0	46.5		ug/Kg		93	78 - 121	2	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	94		71 - 136
4-Bromofluorobenzene (Surr)	98		79 - 119
Dibromofluoromethane (Surr)	99		78 - 119
Toluene-d8 (Surr)	99		85 - 116

Lab Sample ID: 160-22833-7 MS

Matrix: Solid

Analysis Batch: 314357

Client Sample ID: M066A

Prep Type: Total/NA

Prep Batch: 314367

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Acetone	17	J	57.6	81.3		ug/Kg	⊗	112	36 - 164
Benzene	1.1	U	57.6	54.3		ug/Kg	⊗	94	77 - 121
Bromoform	1.1	U	57.6	52.0		ug/Kg	⊗	90	67 - 132
Bromodichloromethane	1.1	U	57.6	56.7		ug/Kg	⊗	98	75 - 127
Bromomethane	5.7	U	57.6	47.5		ug/Kg	⊗	82	53 - 143
2-Butanone (MEK)	5.7	U	57.6	48.2		ug/Kg	⊗	84	51 - 148
Carbon disulfide	1.1	U	57.6	56.6		ug/Kg	⊗	98	63 - 132
Carbon tetrachloride	1.1	U	57.6	52.8		ug/Kg	⊗	92	70 - 135
Chlorobenzene	1.1	U	57.6	55.8		ug/Kg	⊗	97	79 - 120
Dibromochloromethane	1.1	U	57.6	55.3		ug/Kg	⊗	96	74 - 126
Chloroethane	1.1	U	57.6	46.8		ug/Kg	⊗	81	59 - 139
Chloroform	1.1	U	57.6	55.4		ug/Kg	⊗	96	78 - 123
Chloromethane	5.7	U	57.6	50.1		ug/Kg	⊗	87	50 - 136
Cyclohexane	1.1	U	57.6	52.3		ug/Kg	⊗	91	67 - 131
1,2-Dibromo-3-Chloropropane	5.7	U	57.6	53.7		ug/Kg	⊗	93	61 - 132
1,2-Dichlorobenzene	9.6		57.6	67.4		ug/Kg	⊗	100	78 - 121
1,3-Dichlorobenzene	1.1	U	57.6	60.5		ug/Kg	⊗	105	77 - 121
1,4-Dichlorobenzene	1.3	J	57.6	59.4		ug/Kg	⊗	101	75 - 120
1,1-Dichloroethane	1.1	U	57.6	56.1		ug/Kg	⊗	97	76 - 125
1,2-Dichloroethane	1.1	U	57.6	54.5		ug/Kg	⊗	95	73 - 128

TestAmerica St. Louis

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 8260C DOD - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-22833-7 MS

Matrix: Solid

Analysis Batch: 314357

Client Sample ID: M066A

Prep Type: Total/NA

Prep Batch: 314367

%Rec.

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits		
	Result	Qualifier	Added	Result	Qualifier						
cis-1,2-Dichloroethene	4.5	J	57.6	60.1		ug/Kg	⊗	96	77 - 123		
trans-1,2-Dichloroethene	1.1	U	57.6	54.7		ug/Kg	⊗	95	74 - 125		
1,1-Dichloroethene	5.7	U	57.6	55.5		ug/Kg	⊗	96	70 - 131		
1,2-Dichloropropane	1.1	U	57.6	57.5		ug/Kg	⊗	100	76 - 123		
cis-1,3-Dichloropropene	1.1	U	57.6	57.3		ug/Kg	⊗	100	74 - 126		
trans-1,3-Dichloropropene	1.1	U	57.6	54.6		ug/Kg	⊗	95	71 - 130		
Ethylbenzene	1.1	U	57.6	55.9		ug/Kg	⊗	97	76 - 122		
1,1,2-Trichloro-1,2,2-trifluoroethane	5.7	U	57.6	53.3		ug/Kg	⊗	92	66 - 136		
2-Hexanone	5.7	U	57.6	47.2		ug/Kg	⊗	82	53 - 145		
Isopropylbenzene	0.56	J	57.6	66.3		ug/Kg	⊗	114	68 - 134		
Methyl acetate	5.7	U	288	310		ug/Kg	⊗	108	53 - 144		
Methylcyclohexane	0.60	J	57.6	51.3		ug/Kg	⊗	88	66 - 133		
Methylene Chloride	16		57.6	69.2		ug/Kg	⊗	92	70 - 128		
4-Methyl-2-pentanone (MIBK)	5.7	U	57.6	51.4		ug/Kg	⊗	89	65 - 135		
Methyl tert-butyl ether	1.1	U	57.6	56.6		ug/Kg	⊗	98	73 - 125		
Trichlorofluoromethane	1.1	U	57.6	54.2		ug/Kg	⊗	94	62 - 140		
Trichloroethene	1.1	U	57.6	54.9		ug/Kg	⊗	95	77 - 123		
1,2,4-Trichlorobenzene	1.1	U	57.6	44.4		ug/Kg	⊗	77	67 - 129		
1,1,1-Trichloroethane	1.1	U	57.6	54.4		ug/Kg	⊗	94	73 - 130		
Vinyl chloride	1.1	U	57.6	55.5		ug/Kg	⊗	96	56 - 135		
Xylenes, Total	4.7	J	115	115		ug/Kg	⊗	96	78 - 124		
o-Xylene	3.4	J	57.6	61.2		ug/Kg	⊗	100	77 - 123		
m-Xylene & p-Xylene	1.3	J	57.6	53.8		ug/Kg	⊗	91	77 - 124		
1,1,2,2-Tetrachloroethane	1.1	U	57.6	63.6		ug/Kg	⊗	110	70 - 124		
1,1,2-Trichloroethane	1.1	U	57.6	58.4		ug/Kg	⊗	101	78 - 121		
Styrene	1.1	U	57.6	56.0		ug/Kg	⊗	97	76 - 124		
Tetrachloroethene	1.1	U	57.6	53.4		ug/Kg	⊗	93	73 - 128		
Toluene	3.2	J	57.6	58.7		ug/Kg	⊗	96	77 - 121		
Dichlorodifluoromethane	5.7	U	57.6	53.3		ug/Kg	⊗	93	29 - 149		
1,2-Dibromoethane	1.1	U	57.6	54.6		ug/Kg	⊗	95	78 - 121		

MS **MS**

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		71 - 136
4-Bromofluorobenzene (Surr)	110		79 - 119
Dibromofluoromethane (Surr)	101		78 - 119
Toluene-d8 (Surr)	97		85 - 116

Lab Sample ID: 160-22833-7 MSD

Matrix: Solid

Analysis Batch: 314357

Client Sample ID: M066A

Prep Type: Total/NA

Prep Batch: 314367

%Rec.

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Acetone	17	J	57.5	85.9		ug/Kg	⊗	120	36 - 164	6	20
Benzene	1.1	U	57.5	53.2		ug/Kg	⊗	93	77 - 121	2	20
Bromoform	1.1	U	57.5	54.0		ug/Kg	⊗	94	67 - 132	4	20
Bromodichloromethane	1.1	U	57.5	56.2		ug/Kg	⊗	98	75 - 127	1	20
Bromomethane	5.7	U	57.5	49.3		ug/Kg	⊗	86	53 - 143	4	20

TestAmerica St. Louis

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 8260C DOD - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-22833-7 MSD

Matrix: Solid

Analysis Batch: 314357

Client Sample ID: M066A

Prep Type: Total/NA

Prep Batch: 314367

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
2-Butanone (MEK)	5.7	U	57.5	50.2		ug/Kg	⊗	87	51 - 148	4	20
Carbon disulfide	1.1	U	57.5	56.7		ug/Kg	⊗	99	63 - 132	0	20
Carbon tetrachloride	1.1	U	57.5	53.1		ug/Kg	⊗	92	70 - 135	1	20
Chlorobenzene	1.1	U	57.5	54.1		ug/Kg	⊗	94	79 - 120	3	20
Dibromochloromethane	1.1	U	57.5	55.6		ug/Kg	⊗	97	74 - 126	1	20
Chloroethane	1.1	U	57.5	48.7		ug/Kg	⊗	85	59 - 139	4	20
Chloroform	1.1	U	57.5	55.5		ug/Kg	⊗	96	78 - 123	0	20
Chloromethane	5.7	U	57.5	51.6		ug/Kg	⊗	90	50 - 136	3	20
Cyclohexane	1.1	U	57.5	52.3		ug/Kg	⊗	91	67 - 131	0	20
1,2-Dibromo-3-Chloropropane	5.7	U	57.5	54.5		ug/Kg	⊗	95	61 - 132	2	20
1,2-Dichlorobenzene	9.6		57.5	67.5		ug/Kg	⊗	101	78 - 121	0	20
1,3-Dichlorobenzene	1.1	U	57.5	58.3		ug/Kg	⊗	101	77 - 121	4	20
1,4-Dichlorobenzene	1.3	J	57.5	56.7		ug/Kg	⊗	96	75 - 120	5	20
1,1-Dichloroethane	1.1	U	57.5	55.6		ug/Kg	⊗	97	76 - 125	1	20
1,2-Dichloroethane	1.1	U	57.5	55.0		ug/Kg	⊗	96	73 - 128	1	20
cis-1,2-Dichloroethylene	4.5	J	57.5	61.4		ug/Kg	⊗	99	77 - 123	2	20
trans-1,2-Dichloroethylene	1.1	U	57.5	54.7		ug/Kg	⊗	95	74 - 125	0	20
1,1-Dichloroethene	5.7	U	57.5	56.3		ug/Kg	⊗	98	70 - 131	1	20
1,2-Dichloropropane	1.1	U	57.5	54.9		ug/Kg	⊗	95	76 - 123	5	20
cis-1,3-Dichloropropene	1.1	U	57.5	54.6		ug/Kg	⊗	95	74 - 126	5	20
trans-1,3-Dichloropropene	1.1	U	57.5	54.7		ug/Kg	⊗	95	71 - 130	0	20
Ethylbenzene	1.1	U	57.5	54.3		ug/Kg	⊗	94	76 - 122	3	20
1,1,2-Trichloro-1,2,2-trifluoroethane	5.7	U	57.5	54.0		ug/Kg	⊗	94	66 - 136	1	20
2-Hexanone	5.7	U	57.5	47.6		ug/Kg	⊗	83	53 - 145	1	20
Isopropylbenzene	0.56	J	57.5	64.8		ug/Kg	⊗	112	68 - 134	2	20
Methyl acetate	5.7	U	288	313		ug/Kg	⊗	109	53 - 144	1	20
Methylcyclohexane	0.60	J	57.5	50.0		ug/Kg	⊗	86	66 - 133	2	20
Methylene Chloride	16		57.5	76.5		ug/Kg	⊗	104	70 - 128	10	20
4-Methyl-2-pentanone (MIBK)	5.7	U	57.5	51.4		ug/Kg	⊗	89	65 - 135	0	20
Methyl tert-butyl ether	1.1	U	57.5	59.4		ug/Kg	⊗	103	73 - 125	5	20
Trichlorofluoromethane	1.1	U	57.5	54.1		ug/Kg	⊗	94	62 - 140	0	20
Trichloroethylene	1.1	U	57.5	53.3		ug/Kg	⊗	93	77 - 123	3	20
1,2,4-Trichlorobenzene	1.1	U	57.5	45.4		ug/Kg	⊗	79	67 - 129	2	20
1,1,1-Trichloroethane	1.1	U	57.5	54.4		ug/Kg	⊗	95	73 - 130	0	20
Vinyl chloride	1.1	U	57.5	57.7		ug/Kg	⊗	100	56 - 135	4	20
Xylenes, Total	4.7	J	115	110		ug/Kg	⊗	91	78 - 124	5	20
o-Xylene	3.4	J	57.5	59.2		ug/Kg	⊗	97	77 - 123	3	20
m-Xylene & p-Xylene	1.3	J	57.5	50.6		ug/Kg	⊗	86	77 - 124	6	20
1,1,2,2-Tetrachloroethane	1.1	U	57.5	58.9		ug/Kg	⊗	102	70 - 124	8	20
1,1,2-Trichloroethane	1.1	U	57.5	56.7		ug/Kg	⊗	99	78 - 121	3	20
Styrene	1.1	U	57.5	54.3		ug/Kg	⊗	94	76 - 124	3	20
Tetrachloroethylene	1.1	U	57.5	51.4		ug/Kg	⊗	89	73 - 128	4	20
Toluene	3.2	J	57.5	57.2		ug/Kg	⊗	94	77 - 121	3	20
Dichlorodifluoromethane	5.7	U	57.5	54.2		ug/Kg	⊗	94	29 - 149	2	20
1,2-Dibromoethane	1.1	U	57.5	53.5		ug/Kg	⊗	93	78 - 121	2	20

TestAmerica St. Louis

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 8260C DOD - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-22833-7 MSD

Matrix: Solid

Analysis Batch: 314357

Client Sample ID: M066A

Prep Type: Total/NA

Prep Batch: 314367

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		71 - 136
4-Bromofluorobenzene (Surr)	110		79 - 119
Dibromofluoromethane (Surr)	101		78 - 119
Toluene-d8 (Surr)	97		85 - 116

Method: 8015B GRO DOD - Gasoline Range Organics - (GC)

Lab Sample ID: MB 160-314608/1-A

Matrix: Solid

Analysis Batch: 315845

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 314608

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	1.3	U	5.0	0.50	mg/Kg	D	06/21/17 14:19	06/29/17 18:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	101		45 - 130	06/21/17 14:19	06/29/17 18:35	1

Lab Sample ID: LCS 160-314608/2-A

Matrix: Solid

Analysis Batch: 315845

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 314608

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Gasoline Range Organics (C6-C12)	100	99.5		mg/Kg	D	100	79 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	106		45 - 130	06/21/17 14:19	06/29/17 18:35	1

Lab Sample ID: LCSD 160-314608/3-A

Matrix: Solid

Analysis Batch: 315845

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 314608

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD
Gasoline Range Organics (C6-C12)	100	98.8		mg/Kg	D	99	79 - 122	1

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	105		45 - 130	06/21/17 14:19	06/29/17 18:35	1

Method: 8015B DRO - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 160-313619/1-A

Matrix: Solid

Analysis Batch: 317295

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 313619

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	5.0	U	25	2.5	mg/Kg	D	06/15/17 11:51	07/13/17 15:35	1

TestAmerica St. Louis

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 8015B DRO - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 160-313619/1-A

Matrix: Solid

Analysis Batch: 317295

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 313619

Analyte	MB		LOQ	DL	Unit	D	Prepared		Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed		
Motor Oil Range Organics [C28-C40]	5.0	U	25	2.5	mg/Kg	D	06/15/17 11:51	07/13/17 15:35		1
<hr/>										
Surrogate										
<i>o-Terphenyl (Surr)</i>		%Recovery	Qualifer	Limits			Prepared	Analyzed	Dil Fac	
		66		45 - 130			06/15/17 11:51	07/13/17 15:35		1

Lab Sample ID: LCS 160-313619/2-A

Matrix: Solid

Analysis Batch: 317295

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 313619

Analyte	LCS		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	Dil Fac
	Result	Qualifier								
Diesel Range Organics [C10-C28]			83.3	48.9		mg/Kg	D	59	38 - 132	
<hr/>										
Surrogate										
<i>o-Terphenyl (Surr)</i>		%Recovery	Qualifer	Limits						
		71		45 - 130						

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 160-316277/1-A

Matrix: Solid

Analysis Batch: 316900

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 316277

Analyte	MB		LOQ	DL	Unit	D	Prepared		Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed		
Antimony	0.36	U	0.45	0.18	mg/Kg	D	07/05/17 10:33	07/11/17 07:30		2
Arsenic	0.73	U	0.91	0.36	mg/Kg		07/05/17 10:33	07/11/17 07:30		2
Barium	0.91	U	1.8	0.45	mg/Kg		07/05/17 10:33	07/11/17 07:30		2
Beryllium	0.073	U	0.091	0.036	mg/Kg		07/05/17 10:33	07/11/17 07:30		2
Chromium	0.82	U	0.91	0.41	mg/Kg		07/05/17 10:33	07/11/17 07:30		2
Cobalt	0.14	U	0.18	0.068	mg/Kg		07/05/17 10:33	07/11/17 07:30		2
Copper	0.73	U	0.91	0.36	mg/Kg		07/05/17 10:33	07/11/17 07:30		2
Lead	0.23	U	0.27	0.11	mg/Kg		07/05/17 10:33	07/11/17 07:30		2
Molybdenum	0.36	U	0.45	0.18	mg/Kg		07/05/17 10:33	07/11/17 07:30		2
Nickel	0.36	U	0.45	0.18	mg/Kg		07/05/17 10:33	07/11/17 07:30		2
Selenium	0.36	U	0.45	0.29	mg/Kg		07/05/17 10:33	07/11/17 07:30		2
Silver	0.14	U	0.18	0.068	mg/Kg		07/05/17 10:33	07/11/17 07:30		2
Thallium	0.36	U	0.45	0.18	mg/Kg		07/05/17 10:33	07/11/17 07:30		2
Vanadium	0.73	U	0.91	0.36	mg/Kg		07/05/17 10:33	07/11/17 07:30		2
Zinc	3.6	U	4.5	1.8	mg/Kg		07/05/17 10:33	07/11/17 07:30		2

Lab Sample ID: MB 160-316277/1-A

Matrix: Solid

Analysis Batch: 316963

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 316277

Analyte	MB		LOQ	DL	Unit	D	Prepared		Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed		
Cadmium	0.044	U	0.045	0.022	mg/Kg	D	07/05/17 10:33	07/11/17 19:34		2

TestAmerica St. Louis

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 160-316277/2-A

Matrix: Solid

Analysis Batch: 316900

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 316277

%Rec.

Limits

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	49.5	49.4	D	mg/Kg		100	72 - 124
Arsenic	99.1	99.6	D	mg/Kg		101	82 - 118
Barium	99.1	101	D	mg/Kg		102	86 - 116
Beryllium	9.91	10.1	D	mg/Kg		102	80 - 120
Chromium	99.1	95.4	D	mg/Kg		96	83 - 119
Cobalt	99.1	96.8	D	mg/Kg		98	84 - 115
Copper	99.1	96.8	D	mg/Kg		98	84 - 119
Lead	99.1	99.0	D	mg/Kg		100	84 - 118
Molybdenum	49.5	49.9	D	mg/Kg		101	83 - 114
Nickel	99.1	101	D	mg/Kg		101	84 - 119
Selenium	49.5	50.0	D	mg/Kg		101	80 - 119
Silver	19.8	19.8	D	mg/Kg		100	83 - 118
Thallium	19.8	20.0	D	mg/Kg		101	83 - 118
Vanadium	99.1	93.4	D	mg/Kg		94	82 - 116
Zinc	99.1	98.4	D	mg/Kg		99	82 - 119

Lab Sample ID: LCS 160-316277/2-A

Matrix: Solid

Analysis Batch: 316963

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 316277

%Rec.

Limits

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cadmium	99.0	96.6	D	mg/Kg		98	84 - 116

Lab Sample ID: 160-22833-1 MS

Matrix: Solid

Analysis Batch: 316900

Client Sample ID: M061A

Prep Type: Total/NA

Prep Batch: 316277

%Rec.

Limits

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Antimony	0.73	J D	53.5	40.6	D	mg/Kg	⊗	75	72 - 124
Arsenic	3.4	D	107	111	D	mg/Kg	⊗	101	82 - 118
Barium	48	D J	107	190	D J	mg/Kg	⊗	133	86 - 116
Beryllium	0.15	J D	10.7	10.7	D	mg/Kg	⊗	98	80 - 120
Chromium	57	D	107	163	D	mg/Kg	⊗	98	83 - 119
Cobalt	5.9	D	107	112	D	mg/Kg	⊗	100	84 - 115
Copper	89	D J	107	211	D	mg/Kg	⊗	114	84 - 119
Lead	84	D J	107	217	D J	mg/Kg	⊗	124	84 - 118
Molybdenum	0.72	J D	53.5	53.2	D	mg/Kg	⊗	98	83 - 114
Nickel	37	D	107	148	D	mg/Kg	⊗	104	84 - 119
Selenium	1.1	U	53.5	53.9	D	mg/Kg	⊗	101	80 - 119
Silver	0.47	J D	21.4	21.7	D	mg/Kg	⊗	99	83 - 118
Thallium	1.1	U	21.4	21.3	D	mg/Kg	⊗	99	83 - 118
Vanadium	24	D	107	128	D	mg/Kg	⊗	97	82 - 116
Zinc	150	D J	107	315	D J	mg/Kg	⊗	156	82 - 119

TestAmerica St. Louis

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 160-22833-1 MS

Matrix: Solid

Analysis Batch: 316963

Client Sample ID: M061A

Prep Type: Total/NA

Prep Batch: 316277

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Cadmium	4.8	D J	107	123	D	mg/Kg	⊗	110	84 - 116

Lab Sample ID: 160-22833-1 MSD

Matrix: Solid

Analysis Batch: 316900

Client Sample ID: M061A

Prep Type: Total/NA

Prep Batch: 316277

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD	Limit
Antimony	0.73	J D	47.2	35.1	D	mg/Kg	⊗	73	72 - 124	15
Arsenic	3.4	D	94.3	101	D	mg/Kg	⊗	103	82 - 118	10
Barium	48	D J	94.3	184	D J	mg/Kg	⊗	144	86 - 116	3
Beryllium	0.15	J D	9.43	9.75	D	mg/Kg	⊗	102	80 - 120	9
Chromium	57	D	94.3	152	D	mg/Kg	⊗	100	83 - 119	7
Cobalt	5.9	D	94.3	100	D	mg/Kg	⊗	100	84 - 115	11
Copper	89	D J	94.3	173	D	mg/Kg	⊗	90	84 - 119	19
Lead	84	D J	94.3	177	D	mg/Kg	⊗	98	84 - 118	20
Molybdenum	0.72	J D	47.2	47.5	D	mg/Kg	⊗	99	83 - 114	11
Nickel	37	D	94.3	143	D	mg/Kg	⊗	113	84 - 119	3
Selenium	1.1	U	47.2	49.5	D	mg/Kg	⊗	105	80 - 119	9
Silver	0.47	J D	18.9	19.3	D	mg/Kg	⊗	100	83 - 118	12
Thallium	1.1	U	18.9	19.1	D	mg/Kg	⊗	101	83 - 118	11
Vanadium	24	D	94.3	119	D	mg/Kg	⊗	101	82 - 116	7
Zinc	150	D J	94.3	243	D J	mg/Kg	⊗	101	82 - 119	26

Lab Sample ID: 160-22833-1 MSD

Matrix: Solid

Analysis Batch: 316963

Client Sample ID: M061A

Prep Type: Total/NA

Prep Batch: 316277

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD	Limit
Cadmium	4.8	D J	94.3	96.5	D J	mg/Kg	⊗	97	84 - 116	24

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 160-314404/1-A

Matrix: Solid

Analysis Batch: 314983

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 314404

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028	U	0.031	0.010	mg/Kg	⊗	06/21/17 09:47	06/22/17 15:37	1

Lab Sample ID: LCS 160-314404/2-A

Matrix: Solid

Analysis Batch: 314983

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 314404

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Mercury	0.747	0.782		mg/Kg	⊗	105	80 - 124

TestAmerica St. Louis

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 160-22829-I-1-D MS

Matrix: Solid

Analysis Batch: 314983

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 314404

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Mercury	0.97		0.803	1.75	J	mg/Kg	⊗	98	80 - 124

Lab Sample ID: 160-22829-I-1-E MSD

Matrix: Solid

Analysis Batch: 314983

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 314404

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD	Limit
Mercury	0.97		0.826	1.73	J	mg/Kg	⊗	93	80 - 124	1 30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-313662/1-A

Matrix: Solid

Analysis Batch: 316547

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 313662

Analyte	Result	MB Qualifier	Count	Total	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.05389		0.0316	0.0321	1.00	0.0326	pCi/g	06/15/17 14:51	07/07/17 15:58	1
Cesium-137	-0.005201	U	0.0188	0.0188	0.113	0.0319	pCi/g	06/15/17 14:51	07/07/17 15:58	1
Cobalt-60	-0.01037	U	0.0249	0.0249	0.0361	0.0262	pCi/g	06/15/17 14:51	07/07/17 15:58	1

Lab Sample ID: LCS 160-313662/2-A

Matrix: Solid

Analysis Batch: 316546

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 313662

Analyte	Added	Spike	LCS	LCS	Total	Uncert. (2σ+/-)	LOQ	MDC	Unit	%Rec.	Limits
		Result	Qual	(2σ+/-)	(2σ+/-)						
Americium-241	97.0		96.17		10.0			0.499	pCi/g	99	87 - 116
Cesium-137	28.9		28.36		2.96		0.113	0.0984	pCi/g	98	87 - 120
Cobalt-60	14.9		14.38		1.45		0.0361	0.0463	pCi/g	97	87 - 115

Lab Sample ID: 160-22833-1 DU

Matrix: Solid

Analysis Batch: 316611

Client Sample ID: M061A

Prep Type: Total/NA

Prep Batch: 313662

Analyte	Result	Sample	Sample	DU	DU	Total	Uncert. (2σ+/-)	LOQ	MDC	Unit	RER	Limit
		Result	Qual	Result	Qual	(2σ+/-)						
Radium-226	0.499			0.4341		0.0842		1.00	0.0640	pCi/g	0.40	1
Cesium-137	-0.0139	U		0.007452	U	0.0230		0.113	0.0388	pCi/g	0.46	1
Cobalt-60	0.0151	U		-0.02076	U	0.0343		0.0361	0.0363	pCi/g	0.66	1

TestAmerica St. Louis

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-313777/1-A

Matrix: Solid

Analysis Batch: 315636

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 313777

Analyte	MB MB		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Strontium-90	-0.07716	U	0.132	0.132	0.331	0.236	pCi/g	06/16/17 09:32	06/28/17 15:19	1
Carrier										
Sr Carrier	88.1		40 - 110					06/16/17 09:32	06/28/17 15:19	1
Y Carrier	95.7		40 - 110					06/16/17 09:32	06/28/17 15:19	1

Lab Sample ID: LCS 160-313777/2-A

Matrix: Solid

Analysis Batch: 315636

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 313777

Analyte	Spike MB		LCS Result	LCS Qual	Total Uncert.		LOQ	MDC	Unit	%Rec.	Limits
	Added	Qualifier			(2σ+/-)	LOQ					
Strontium-90	8.43		8.245		0.774	0.331	0.219	pCi/g	98	75 - 125	
Carrier											
Sr Carrier	87.6		40 - 110								
Y Carrier	98.3		40 - 110								

Lab Sample ID: 160-22829-G-1-F DU

Matrix: Solid

Analysis Batch: 315636

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 313777

Analyte	Sample MB		DU DU		Total Uncert.		LOQ	MDC	Unit	RER	Limit
	Result	Qual	Result	Qual	(2σ+/-)	LOQ					
Strontium-90	0.0679	U	0.05777	U	0.118	0.331	0.200	pCi/g		0.04	1
Carrier											
Sr Carrier	85.1		40 - 110								
Y Carrier	99.8		40 - 110								

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Lab Sample ID: MB 160-314498/1-A

Matrix: Solid

Analysis Batch: 316189

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 314498

Analyte	MB MB		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	LOQ	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Thorium-228	0.05730	U	0.0574	0.0576	1.00	0.0871	pCi/g	06/21/17 12:21	07/03/17 15:31	1
Thorium-230	0.02768	U	0.0321	0.0322	1.00	0.0443	pCi/g	06/21/17 12:21	07/03/17 15:31	1
Thorium-232	0.00000	U	0.00393	0.00393	1.00	0.0236	pCi/g	06/21/17 12:21	07/03/17 15:31	1
Tracer										
Thorium-229	95.6		30 - 110					06/21/17 12:21	07/03/17 15:31	1

TestAmerica St. Louis

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry) (Continued)

Lab Sample ID: LCS 160-314498/2-A

Matrix: Solid

Analysis Batch: 316099

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 314498

Analyte	Spike Added	LCS		Uncert. (2σ+/-)	Total		MDC	Unit	%Rec	%Rec.	Limits
		Result	Qual		LOQ	Unit					
Thorium-230	24.5	27.04		2.64	1.00	pCi/g	0.120	pCi/g	110	81 - 118	
Tracer											
Thorium-229	95.8			30 - 110							

Lab Sample ID: 160-22833-1 DU

Matrix: Solid

Analysis Batch: 316101

Client Sample ID: M061A

Prep Type: Total/NA

Prep Batch: 314498

Analyte	Sample		DU		Total		RER	Limit			
	Result	Qual	Result	Qual	Uncert. (2σ+/-)	LOQ	MDC	Unit			
Thorium-228	0.459		0.4348		0.136	1.00	0.0999	pCi/g	0.09	1	
Thorium-230	0.384		0.5569		0.149	1.00	0.0633	pCi/g	0.64	1	
Thorium-232	0.455		0.2850		0.103	1.00	0.0421	pCi/g	0.72	1	
Tracer											
Thorium-229	87.0		30 - 110								

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Lab Sample ID: MB 160-314499/1-A

Matrix: Solid

Analysis Batch: 316108

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 314499

Analyte	MB		Count		Total		Prepared	Analyzed	Dil Fac		
	Result	MB Qualifier	Uncert. (2σ+/-)	Total (2σ+/-)	LOQ	MDC	Unit				
Uranium-233/234	0.01514	U	0.0283	0.0284	0.742	0.0512	pCi/g	06/21/17 12:21	07/01/17 16:10	1	
Uranium-235/236	-0.003943	U	0.0225	0.0225	0.742	0.0556	pCi/g	06/21/17 12:21	07/01/17 16:10	1	
Uranium-238	0.03267		0.0260	0.0262	0.742	0.0311	pCi/g	06/21/17 12:21	07/01/17 16:10	1	
Tracer											
Uranium-232	107		30 - 110					Prepared	Analyzed	Dil Fac	
								06/21/17 12:21	07/01/17 16:10	1	

Lab Sample ID: LCS 160-314499/2-A

Matrix: Solid

Analysis Batch: 316109

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 314499

Analyte	Spike		LCS		Total		MDC	Unit	%Rec	%Rec.	Limits
	Added	Result	Result	Qual	Uncert. (2σ+/-)	LOQ					
Uranium-233/23	6.37	6.532			0.649	0.742	0.0482	pCi/g	103	84 - 120	
Uranium-238	6.51	6.640			0.657	0.742	0.0336	pCi/g	102	82 - 122	
Tracer											
Uranium-232	99.9		30 - 110								

TestAmerica St. Louis

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry) (Continued)

Lab Sample ID: 160-22833-1 DU

Matrix: Solid

Analysis Batch: 316111

Client Sample ID: M061A

Prep Type: Total/NA

Prep Batch: 314499

Analyte	Sample	Sample	DU		DU		Total		LOQ	MDC	Unit		RER	RER	Limit
	Result	Qual	Result	Qual	Result	Qual	(2 σ +/-)	Uncert.							
Uranium-233/23	0.277		0.2549		0.0745		0.742		0.0409	pCi/g			0.15	1	
4															
Uranium-235/23	0.0117	U	0.02697	U	0.0269		0.742		0.0325	pCi/g			0.35	1	
6															
Uranium-238	0.286		0.3236		0.0831		0.742		0.0261	pCi/g			0.23	1	
<i>Tracer</i>		<i>DU</i>	<i>DU</i>												
<i>Uranium-232</i>		%Yield	Qualifier		Limits										
		93.3			30 - 110										

TestAmerica St. Louis

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

GC/MS VOA

Prep Batch: 314167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1	M061A	Total/NA	Solid	5030C	5
160-22833-2	M062A	Total/NA	Solid	5030C	5
160-22833-6 - DL	M061A-R	Total/NA	Solid	5030C	5
MB 160-314167/1-A	Method Blank	Total/NA	Solid	5030C	6
LCS 160-314167/2-A	Lab Control Sample	Total/NA	Solid	5030C	7
LCSD 160-314167/3-A	Lab Control Sample Dup	Total/NA	Solid	5030C	7

Analysis Batch: 314357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-3	M063A	Total/NA	Solid	8260C DOD	314367
160-22833-4	M064A	Total/NA	Solid	8260C DOD	314367
160-22833-5	M065A	Total/NA	Solid	8260C DOD	314367
160-22833-7	M066A	Total/NA	Solid	8260C DOD	314367
MB 160-314367/1-A	Method Blank	Total/NA	Solid	8260C DOD	314367
LCS 160-314367/2-A	Lab Control Sample	Total/NA	Solid	8260C DOD	314367
LCSD 160-314367/3-A	Lab Control Sample Dup	Total/NA	Solid	8260C DOD	314367
160-22833-7 MS	M066A	Total/NA	Solid	8260C DOD	314367
160-22833-7 MSD	M066A	Total/NA	Solid	8260C DOD	314367

Prep Batch: 314367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-3	M063A	Total/NA	Solid	5030C	5
160-22833-4	M064A	Total/NA	Solid	5030C	5
160-22833-5	M065A	Total/NA	Solid	5030C	5
160-22833-7	M066A	Total/NA	Solid	5030C	5
MB 160-314367/1-A	Method Blank	Total/NA	Solid	5030C	5
LCS 160-314367/2-A	Lab Control Sample	Total/NA	Solid	5030C	5
LCSD 160-314367/3-A	Lab Control Sample Dup	Total/NA	Solid	5030C	5
160-22833-7 MS	M066A	Total/NA	Solid	5030C	5
160-22833-7 MSD	M066A	Total/NA	Solid	5030C	5

Analysis Batch: 316046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1	M061A	Total/NA	Solid	8260C DOD	314167
160-22833-2	M062A	Total/NA	Solid	8260C DOD	314167
160-22833-6 - DL	M061A-R	Total/NA	Solid	8260C DOD	314167
MB 160-314167/1-A	Method Blank	Total/NA	Solid	8260C DOD	314167
LCS 160-314167/2-A	Lab Control Sample	Total/NA	Solid	8260C DOD	314167
LCSD 160-314167/3-A	Lab Control Sample Dup	Total/NA	Solid	8260C DOD	314167

GC VOA

Prep Batch: 314608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1	M061A	Total/NA	Solid	5030B	5
160-22833-2	M062A	Total/NA	Solid	5030B	5
160-22833-3	M063A	Total/NA	Solid	5030B	5
160-22833-4	M064A	Total/NA	Solid	5030B	5
160-22833-5	M065A	Total/NA	Solid	5030B	5
160-22833-6	M061A-R	Total/NA	Solid	5030B	5

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QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

GC VOA (Continued)

Prep Batch: 314608 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-7	M066A	Total/NA	Solid	5030B	
MB 160-314608/1-A	Method Blank	Total/NA	Solid	5030B	
LCS 160-314608/2-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 160-314608/3-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Analysis Batch: 315845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-2	M062A	Total/NA	Solid	8015B GRO	314608
160-22833-3	M063A	Total/NA	Solid	DOD	
160-22833-4	M064A	Total/NA	Solid	8015B GRO	314608
160-22833-5	M065A	Total/NA	Solid	DOD	
160-22833-7	M066A	Total/NA	Solid	8015B GRO	314608
MB 160-314608/1-A	Method Blank	Total/NA	Solid	DOD	
LCS 160-314608/2-A	Lab Control Sample	Total/NA	Solid	8015B GRO	314608
LCSD 160-314608/3-A	Lab Control Sample Dup	Total/NA	Solid	DOD	
				8015B GRO	314608
				DOD	

Analysis Batch: 316043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1	M061A	Total/NA	Solid	8015B GRO	314608
160-22833-6	M061A-R	Total/NA	Solid	DOD	
				8015B GRO	314608
				DOD	

GC Semi VOA

Prep Batch: 313619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1	M061A	Total/NA	Solid	3550C	
160-22833-2	M062A	Total/NA	Solid	3550C	
160-22833-3	M063A	Total/NA	Solid	3550C	
160-22833-4	M064A	Total/NA	Solid	3550C	
160-22833-5	M065A	Total/NA	Solid	3550C	
160-22833-6	M061A-R	Total/NA	Solid	3550C	
160-22833-7	M066A	Total/NA	Solid	3550C	
MB 160-313619/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 160-313619/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 317295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1	M061A	Total/NA	Solid	8015B DRO	313619
160-22833-2	M062A	Total/NA	Solid	8015B DRO	313619
160-22833-3	M063A	Total/NA	Solid	8015B DRO	313619
160-22833-4	M064A	Total/NA	Solid	8015B DRO	313619
160-22833-5	M065A	Total/NA	Solid	8015B DRO	313619
160-22833-6	M061A-R	Total/NA	Solid	8015B DRO	313619

TestAmerica St. Louis

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

GC Semi VOA (Continued)

Analysis Batch: 317295 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-7	M066A	Total/NA	Solid	8015B DRO	313619
MB 160-313619/1-A	Method Blank	Total/NA	Solid	8015B DRO	313619
LCS 160-313619/2-A	Lab Control Sample	Total/NA	Solid	8015B DRO	313619

Metals

Cleanup Batch: 313380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22829-I-1-D MS	Matrix Spike	Total/NA	Solid	Composite	
160-22829-I-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	Composite	

Prep Batch: 314404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1	M061A	Total/NA	Solid	7471B	
160-22833-2	M062A	Total/NA	Solid	7471B	
160-22833-3	M063A	Total/NA	Solid	7471B	
160-22833-4	M064A	Total/NA	Solid	7471B	
160-22833-5	M065A	Total/NA	Solid	7471B	
160-22833-6	M061A-R	Total/NA	Solid	7471B	
160-22833-7	M066A	Total/NA	Solid	7471B	
MB 160-314404/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 160-314404/2-A	Lab Control Sample	Total/NA	Solid	7471B	
160-22829-I-1-D MS	Matrix Spike	Total/NA	Solid	7471B	313380
160-22829-I-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	7471B	313380

Analysis Batch: 314983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1	M061A	Total/NA	Solid	7471B	314404
160-22833-2	M062A	Total/NA	Solid	7471B	314404
160-22833-3	M063A	Total/NA	Solid	7471B	314404
160-22833-4	M064A	Total/NA	Solid	7471B	314404
160-22833-5	M065A	Total/NA	Solid	7471B	314404
160-22833-6	M061A-R	Total/NA	Solid	7471B	314404
160-22833-7	M066A	Total/NA	Solid	7471B	314404
MB 160-314404/1-A	Method Blank	Total/NA	Solid	7471B	314404
LCS 160-314404/2-A	Lab Control Sample	Total/NA	Solid	7471B	314404
160-22829-I-1-D MS	Matrix Spike	Total/NA	Solid	7471B	314404
160-22829-I-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	7471B	314404

Prep Batch: 316277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1	M061A	Total/NA	Solid	3050B	
160-22833-2	M062A	Total/NA	Solid	3050B	
160-22833-3	M063A	Total/NA	Solid	3050B	
160-22833-4	M064A	Total/NA	Solid	3050B	
160-22833-5	M065A	Total/NA	Solid	3050B	
160-22833-6	M061A-R	Total/NA	Solid	3050B	
160-22833-7	M066A	Total/NA	Solid	3050B	
MB 160-316277/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 160-316277/2-A	Lab Control Sample	Total/NA	Solid	3050B	

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QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Metals (Continued)

Prep Batch: 316277 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1 MS	M061A	Total/NA	Solid	3050B	
160-22833-1 MSD	M061A	Total/NA	Solid	3050B	

Analysis Batch: 316900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1	M061A	Total/NA	Solid	6020A	316277
160-22833-2	M062A	Total/NA	Solid	6020A	316277
160-22833-3	M063A	Total/NA	Solid	6020A	316277
160-22833-4	M064A	Total/NA	Solid	6020A	316277
160-22833-5	M065A	Total/NA	Solid	6020A	316277
160-22833-6	M061A-R	Total/NA	Solid	6020A	316277
160-22833-7	M066A	Total/NA	Solid	6020A	316277
MB 160-316277/1-A	Method Blank	Total/NA	Solid	6020A	316277
LCS 160-316277/2-A	Lab Control Sample	Total/NA	Solid	6020A	316277
160-22833-1 MS	M061A	Total/NA	Solid	6020A	316277
160-22833-1 MSD	M061A	Total/NA	Solid	6020A	316277

Analysis Batch: 316963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1	M061A	Total/NA	Solid	6020A	316277
160-22833-2	M062A	Total/NA	Solid	6020A	316277
160-22833-3	M063A	Total/NA	Solid	6020A	316277
160-22833-4	M064A	Total/NA	Solid	6020A	316277
160-22833-5	M065A	Total/NA	Solid	6020A	316277
160-22833-6	M061A-R	Total/NA	Solid	6020A	316277
160-22833-7	M066A	Total/NA	Solid	6020A	316277
MB 160-316277/1-A	Method Blank	Total/NA	Solid	6020A	316277
LCS 160-316277/2-A	Lab Control Sample	Total/NA	Solid	6020A	316277
160-22833-1 MS	M061A	Total/NA	Solid	6020A	316277
160-22833-1 MSD	M061A	Total/NA	Solid	6020A	316277

General Chemistry

Analysis Batch: 313449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1	M061A	Total/NA	Solid	Moisture	
160-22833-2	M062A	Total/NA	Solid	Moisture	
160-22833-3	M063A	Total/NA	Solid	Moisture	
160-22833-4	M064A	Total/NA	Solid	Moisture	
160-22833-5	M065A	Total/NA	Solid	Moisture	
160-22833-6	M061A-R	Total/NA	Solid	Moisture	
160-22833-7	M066A	Total/NA	Solid	Moisture	
160-22829-I-1 DU	Duplicate	Total/NA	Solid	Moisture	

Rad

Cleanup Batch: 313380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22829-G-1-F DU	Duplicate	Total/NA	Solid	Composite	

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QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Rad (Continued)

Leach Batch: 313389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22829-G-1-F DU	Duplicate	Total/NA	Solid	Dry and Grind	313380

Leach Batch: 313395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1	M061A	Total/NA	Solid	Dry and Grind	
160-22833-2	M062A	Total/NA	Solid	Dry and Grind	
160-22833-3	M063A	Total/NA	Solid	Dry and Grind	
160-22833-4	M064A	Total/NA	Solid	Dry and Grind	
160-22833-5	M065A	Total/NA	Solid	Dry and Grind	
160-22833-6	M061A-R	Total/NA	Solid	Dry and Grind	
160-22833-7	M066A	Total/NA	Solid	Dry and Grind	
160-22833-1 DU	M061A	Total/NA	Solid	Dry and Grind	

Prep Batch: 313662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1	M061A	Total/NA	Solid	Fill_Geo-21	313395
160-22833-2	M062A	Total/NA	Solid	Fill_Geo-21	313395
160-22833-3	M063A	Total/NA	Solid	Fill_Geo-21	313395
160-22833-4	M064A	Total/NA	Solid	Fill_Geo-21	313395
160-22833-5	M065A	Total/NA	Solid	Fill_Geo-21	313395
160-22833-6	M061A-R	Total/NA	Solid	Fill_Geo-21	313395
160-22833-7	M066A	Total/NA	Solid	Fill_Geo-21	313395
MB 160-313662/1-A	Method Blank	Total/NA	Solid	Fill_Geo-21	
LCS 160-313662/2-A	Lab Control Sample	Total/NA	Solid	Fill_Geo-21	
160-22833-1 DU	M061A	Total/NA	Solid	Fill_Geo-21	313395

Prep Batch: 313777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1	M061A	Total/NA	Solid	DPS-7	313395
160-22833-2	M062A	Total/NA	Solid	DPS-7	313395
160-22833-3	M063A	Total/NA	Solid	DPS-7	313395
160-22833-4	M064A	Total/NA	Solid	DPS-7	313395
160-22833-5	M065A	Total/NA	Solid	DPS-7	313395
160-22833-6	M061A-R	Total/NA	Solid	DPS-7	313395
160-22833-7	M066A	Total/NA	Solid	DPS-7	313395
MB 160-313777/1-A	Method Blank	Total/NA	Solid	DPS-7	
LCS 160-313777/2-A	Lab Control Sample	Total/NA	Solid	DPS-7	
160-22829-G-1-F DU	Duplicate	Total/NA	Solid	DPS-7	313389

Prep Batch: 314498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1	M061A	Total/NA	Solid	ExtChrom	313395
160-22833-2	M062A	Total/NA	Solid	ExtChrom	313395
160-22833-3	M063A	Total/NA	Solid	ExtChrom	313395
160-22833-4	M064A	Total/NA	Solid	ExtChrom	313395
160-22833-5	M065A	Total/NA	Solid	ExtChrom	313395
160-22833-6	M061A-R	Total/NA	Solid	ExtChrom	313395
160-22833-7	M066A	Total/NA	Solid	ExtChrom	313395
MB 160-314498/1-A	Method Blank	Total/NA	Solid	ExtChrom	
LCS 160-314498/2-A	Lab Control Sample	Total/NA	Solid	ExtChrom	
160-22833-1 DU	M061A	Total/NA	Solid	ExtChrom	313395

TestAmerica St. Louis

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
 Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Prep Batch: 314499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22833-1	M061A	Total/NA	Solid	ExtChrom	313395
160-22833-2	M062A	Total/NA	Solid	ExtChrom	313395
160-22833-3	M063A	Total/NA	Solid	ExtChrom	313395
160-22833-4	M064A	Total/NA	Solid	ExtChrom	313395
160-22833-5	M065A	Total/NA	Solid	ExtChrom	313395
160-22833-6	M061A-R	Total/NA	Solid	ExtChrom	313395
160-22833-7	M066A	Total/NA	Solid	ExtChrom	313395
MB 160-314499/1-A	Method Blank	Total/NA	Solid	ExtChrom	7
LCS 160-314499/2-A	Lab Control Sample	Total/NA	Solid	ExtChrom	11
160-22833-1 DU	M061A	Total/NA	Solid	ExtChrom	313395

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TestAmerica St. Louis

Surrogate Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 8260C DOD - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (71-136)	BFB (79-119)	DBFM (78-119)	TOL (85-116)
160-22833-1	M061A	95	118	89	90
160-22833-2	M062A	96	103	90	91
160-22833-3	M063A	101	97	100	87
160-22833-4	M064A	97	184 Q	97	99
160-22833-5	M065A	124	99	121 Q	90
160-22833-6 - DL	M061A-R	86	326 Q	80	85
160-22833-7	M066A	114	101	113	89
160-22833-7 MS	M066A	96	110	101	97
160-22833-7 MSD	M066A	97	110	101	97
LCS 160-314167/2-A	Lab Control Sample	94	98	92	96
LCS 160-314367/2-A	Lab Control Sample	94	100	103	100
LCSD 160-314167/3-A	Lab Control Sample Dup	98	101	94	98
LCSD 160-314367/3-A	Lab Control Sample Dup	94	98	99	99
MB 160-314167/1-A	Method Blank	104	94	98	95
MB 160-314367/1-A	Method Blank	94	94	97	96

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8015B GRO DOD - Gasoline Range Organics - (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TFT1 (45-130)			
160-22833-1	M061A	80			
160-22833-2	M062A	119			
160-22833-3	M063A	106			
160-22833-4	M064A	153 Q			
160-22833-5	M065A	96			
160-22833-6	M061A-R	0 Q			
160-22833-7	M066A	115			
LCS 160-314608/2-A	Lab Control Sample	106			
LCSD 160-314608/3-A	Lab Control Sample Dup	105			
MB 160-314608/1-A	Method Blank	101			

Surrogate Legend

TFT = Trifluorotoluene (Surr)

Method: 8015B DRO - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		OTPH1 (45-130)			
160-22833-1	M061A	0 D			
160-22833-2	M062A	68			

TestAmerica St. Louis

Surrogate Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 8015B DRO - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		OTPH1 (45-130)	
160-22833-3	M063A	76	
160-22833-4	M064A	0 D	
160-22833-5	M065A	0 D	
160-22833-6	M061A-R	0 D	
160-22833-7	M066A	65	
LCS 160-313619/2-A	Lab Control Sample	71	
MB 160-313619/1-A	Method Blank	66	

Surrogate Legend

OTPH = o-Terphenyl (Surr)

Tracer/Carrier Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: 905 - Strontium-90 (GFPC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Sr (C) (40-110)	Y (40-110)
160-22829-G-1-F DU	Duplicate	85.1	99.8
160-22833-1	M061A	83.8	102
160-22833-2	M062A	85.9	97.9
160-22833-3	M063A	84.3	96.8
160-22833-4	M064A	85.3	101
160-22833-5	M065A	84.4	87.9
160-22833-6	M061A-R	82.3	99.1
160-22833-7	M066A	83.7	99.4
LCS 160-313777/2-A	Lab Control Sample	87.6	98.3
MB 160-313777/1-A	Method Blank	88.1	95.7

Tracer/Carrier Legend

Sr (C) = Sr Carrier

Y = Y Carrier

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Th-229 (30-110)	
160-22833-1	M061A	92.9	
160-22833-1 DU	M061A	87.0	
160-22833-2	M062A	84.9	
160-22833-3	M063A	78.1	
160-22833-4	M064A	91.8	
160-22833-5	M065A	92.2	
160-22833-6	M061A-R	107	
160-22833-7	M066A	88.5	
LCS 160-314498/2-A	Lab Control Sample	95.8	
MB 160-314498/1-A	Method Blank	95.6	

Tracer/Carrier Legend

Th-229 = Thorium-229

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		U-232 (30-110)	
160-22833-1	M061A	95.3	
160-22833-1 DU	M061A	93.3	
160-22833-2	M062A	88.1	
160-22833-3	M063A	88.8	
160-22833-4	M064A	96.0	
160-22833-5	M065A	101	
160-22833-6	M061A-R	98.5	
160-22833-7	M066A	101	
LCS 160-314499/2-A	Lab Control Sample	99.9	

TestAmerica St. Louis

Tracer/Carrier Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Alameda - Soil IDW Samples

TestAmerica Job ID: 160-22833-1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry) (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	U-232 (30-110)	Percent Yield (Acceptance Limits)
MB 160-314499/1-A	Method Blank	107	_____

Tracer/Carrier Legend

U-232 = Uranium-232

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